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THE

MEDICAL AND PHYSICAL JOURNAL,

CONTAINING

THE EARLIEST INFORMATION

ON SUBJECTS OF

MEDICINE, | SURGERY,
PHARMACY, | CHEMISTRY,

AND NATURAL HISTORY;

AND

A critical Analysis of all new Works

IN THOSE DEPARTMENTS OF LITERATURE.

CONDUCTED BY

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Medical and Physical Journal.

VOL. VI.] JULY, 1801. [NO. XXIX.

Cases of Paralysis of the Vesica Urinaria, and Ruptures of the same Organ from Distention; by THOMAS PURTON, Member of the Royal College of Surgeons in London.

To the EDITORS of the MEDICAL and PHYSICAL JOURNAL.

Gentlemen,

THE injuries which the bladder suffers from the neglect or ignorance of the use of the catheter, if I may judge from the cases which have come under my own knowledge, are by no means infrequent. It is a circumstance which cannot possibly take place under the attendance of a cautious and experienced practitioner; therefore, whenever the bladder suffers from an injury of this nature, it must be either from *neglect* or *ignorance*.

The case of Paralysis was in a young woman, who had been delivered by a midwife of her first child, after a very lingering labour; this happened on a Friday, and I saw her on the following Sunday, when I was informed that she had not passed any urine since the Wednesday preceding her delivery, although I was told by the attendants, that *very powerful things had been given*, by the directions of the midwife, *to force her water*. I found her abdomen, of course, uncommonly distended, with much pain and considerable fever: I immediately introduced the catheter, and drew off the quantity of *nearly two gallons* of high coloured urine, which operation I was obliged to repeat every night and morning for three weeks, before the muscular fibres of the bladder were restored to their former healthy action.

The subject of the next case was the mother of many children. In her last labour, which was very lingering, the head of the child pressed so long upon a distended bladder, that it produced a sphacelus, and the contents were evacuated per vaginam soon after her delivery. This woman is still living; but

but from the continual dribbling of the urine, and the consequent irritation, life is become a burthen to her.

The third case was that of a poor woman, who, after a very lingering and laborious labour, was delivered of her first child with great difficulty by the forceps. This woman also, from an unaccountable mistake in the practitioner who attended, was under a course of diuretics for two days after her delivery, thus pouring more into an already distended, and, probably, inflamed bladder, until a mortification and sloughing of its coats took place, which might possibly have been prevented by a more judicious treatment. The statement of this poor woman's case, which I received from a very respectable gentleman, who was afterwards called on to attend her, was very deplorable: In consequence of neglect, probably, the earthy part of the urine was suffered to deposit itself, so as almost to close the entrance of the vagina. On examination, the state of the parts was truly formidable; the finger was passed with difficulty through a rocky canal, surrounding the os externum, and extending some way up the vagina: this extraneous matter produced an extensive ulceration, which, as it increased very rapidly, caused an insupportable irritation; however, by the persevering attention and care of this able practitioner, she was restored as far as art could accomplish or nature admit; so that this gentleman has attended her since in several labours, and one of the times she was delivered of twins.*

Two very useful inferences I think may be drawn from the preceding cases; the first is, the absolute necessity of students sparing no time nor expence in acquiring a perfect knowledge of every branch of their profession, before they attempt to practice for themselves, as I have known myself, more than one who has had the effrontery to set up his standard in a country village as "*Surgeon and Man-midwife*," with a knowledge little superior to an apothecary's apprentice. Secondly, the necessity of the attention which practitioners should pay to their patients making water during their labour, and to use the catheter as soon as there is the least call for it, lest they subject them to pain and misery for the remaining part of their lives; this is a circumstance which requires particular attention, previous to the use of other instruments. Another thing worthy of notice in the preceding case of paralysis, is the vast quantity of water that was drawn off, which renders it truly astonishing,

* Medical and Physical Journal, Vol. II. p. 153.

aſtoniſhing, that a rupture of the bladder did not alſo in that inſtance take place.

Since the above was drawn up for publication, another caſe of paralyſis, ſimilar to that already ſtated, has come under the obſervation of an intimate friend of mine; where the gentleman who firſt attended was either ſo ignorant of the nature of the complaint, (which would appear remarkable, as the woman had not paſſed any urine for four days after her delivery) or incompetent to the uſe of that ſimple inſtrument the catheter. Here, then, is another caſe which ſhews the abſolute expediency of a regular acquirement of every branch of our profeſſion, and not as many gentlemen, who to my knowledge have had the boldneſs to ſettle, without either the benefit of an hoſpital education, or even attending one ſingle lecture on any branch of the medical department. This practice is becoming *so general*, that it ſurely calls for *legislative interference. No person ought to be allowed to settle*, *unleſs he could produce the proper certificates from the different seminaries.*

The ignorant man, under the preſent regulation, if he is poſſeſſed of a *certain species of plausibility*, may have an equal, if not a ſuperior advantage to the experienced practitioner; for unleſs there was ſome *test devised*, ſo that *ignorance* could be *fully exposed*, a man's abilities, however eminent, may by chance and ill fortune be overlooked, when one, without a grain of practical knowledge, may be preferred before him: for I think every gentleman will coincide with me in opinion, that it is virtually impoſſible that any perſon but a medical man *can judge* of a medical man's abilities.

I am, &c.

Alcester, June 6, 1801. T. PURTON.

To the Editors of the Medical and Phyſical Journal.

GENTLEMEN,

MR. HEBB'S caſe of Small-pox induced me to ſtate the following caſe, as deviating a little from the general courſe of ſymptoms, and if thought worthy a place in your Journal, you will oblige me by inſerting it.

I was ſent for at ſix in the morning to a woman in labour, who was delivered at nine; ſhe had ſlight pains the day before, and a trifling head-ache, but no other indiſpoſition, and that ſo ſlight as not to be noticed by her friends. I called on her

the next morning; ſhe was hot and thirſty; which I attributed to the ſmall room in which ſhe lay, being very cloſe, and a fire in it: Her pulſe was natural, and her tongue moiſt; ſhe expreſſed herſelf comfortably. On the ſame evening, (Friday) 11 o'clock, I was ſent for, and was informed, ſhe had a raſh out on her; I told them directly it looked like the Small-pox; the mother ſaid, it could not be that, as ſhe had it when twelve years old, and was marked with it in the face; which I could not then diſcover. On calling the next morning I was fully convinced it was the Small-pox; and I ſuppoſe the mother, or her friends, had been miſtaken reſpecting the former diſeaſe: She had the preſent very full, but did well.

As ſoon as the child was born it was taken from the mother and carried away, (as it was not intended by the friends to be ſuckled by the mother); on the eighth day the child was brought home with the Small-pox, out very full; it became confluent, and the child ſoon died. The child was never put to the breaſt, and was taken away before the eruption appeared on the mother.

I am, &c.

Diſpenſary Houſe, North Street,
May 8, 1801.

W. D. ROLFE.

State of the Patients in the Briſtol Diſpenſary, from the 1ſt of May to the 1ſt of June, 1801.

Typhus Fever - - - -	34	Dropſy - - - - - -	5
Dyſenteria and Diarrhœa -	4	Menſtrual Complaints - -	4
Podagra - - - - - - -	1	Febris Simplex - - - -	8
Conſumption - - - -	9	Gaſtrodynia and Cardialgia	4
Cough and Dyſpnœa - -	2	Paralyſis - - - - - -	3
Aſthma - - - - - - -	2	Nervous - - - - - - -	2
Peripneumonia - - -	6	Bilious - - - - - -	1
Aſcarides - - - - -	1	Icterus - - - - - - -	1
Aſthenia - - - - -	4	Eryſipelas - - - - - -	1
Rheumatiſm - - - -	6	Variola - - - - - - -	1

To the Editors of the Medical and Phyſical Journal.

Gentlemen,

THE volume of evidence already in favour of the Vaccine Inoculation, may perhaps render it unneceſſary to bring forward any additional proofs of its benign influence.

At

At the period of its introduction into practice, I confefs that I was then much prejudiced againft it; but to condem a difcovery (which has fince proved an eftimable one) from prejudice, without proof, and without experience, would exhibit a narrownefs of mind inconfiftent with philofophical enquiry. In the Autumn of 1799, I inoculated three children with Vaccine matter, procured from Dr. Pearfon, all of whom had the difeafe in the ufual way. Early the fpring following, the Small-pox made its appearance in the neighbourhood; a fair opportunity then occurred to attempt to influence thofe children, both by inoculation and expofure; which I did, without the leaft effect, excepting local inflammation. I was likewife, at this time, pretty extenfively engaged in inoculating with variolous matter. The comparative mildnefs between the inoculated Small and Cow-pox, muft be acknowledged by all who have practifed them, to be much in favour of the latter. In the inoculation of Small-pox many untoward fymptoms often arife, both during the period of inoculation and after. Convulfions in the eruptive fever, which, though feldom dangerous, are always alarming, and have in fome inftances proved fatal. Scrophula is likewife often excited, ophthalmias, and troublefome eruptions of the fkin; but what is more generally allowed as an infurmountable objection, is the preffing inducements that frequently occur for inoculating infants before the time of dentition is over; a practice invariably hazardous. Will any profeffional man then fay, that any of thofe objections, fingly or combined, can be offered againft the Cow-pox? In the laft, and commencement of this year, I have inoculated near *two hundred*, from the age of three weeks and upwards, and not one unpleafant fymptom whatever has occurred. During the exceffive heat of laft fummer, the natural Small-pox was very rife, and proved extremely fatal. When but one of a family was attacked with the difeafe, I frequently got beforehand with it, by immediately inoculating the reft with the Cow-pox; which went through its ufual mild courfe *without eruptions*. In feveral inftances parents had children covered with Small-pox, under the fame roof, and often in the fame bed, while others were under the influence of the Cow-pox, which proved their perfect fecurity. I hope that it is not neceffary to particularize cafes, they are fo abundant; and fo many facts have conftantly been adduced, through the medium of your valuable Publication. I have the pleafure to add, that the *Jennerian Inoculation* is univerfally adopted by the medical gentlemen of this town and neighbourhood. I am, &c.

Shrewsbury,
June 16, 1801

W. CLEMENT,
Surgeon and Apothecary.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IT was with pleasure I read in your useful Journal an account of the origin of the Medical School at Edinburgh, and I have no doubt that it would give great satisfaction to many of your readers, especially the junior part, who may wish to compleat their medical education at some university, to have the plan of proceeding at Edinburgh, Glasgow, St. Andrews, and Aberdeen. A principal point is the time necessary to attend at each place, before a diploma can be obtained, and also the forms necessary to be complied with previous to its attainment; a statement of the usual fees, and whether testimonials of attendance to the study of physic in London would be admitted. If this is not incompatible with the intention of your excellent work, I am convinced it would be very acceptable information to the junior part of your readers, in assisting them to arrange the plan of their studies. This idea has prompted me to lay my sentiments before you; and if you view it in the same light as I do, from the personal knowledge I have of your candour and readiness to communicate any medical information, I flatter myself I shall soon see a satisfactory account of these particulars; but should the professional engagements of the Editors prevent their drawing up such an account, perhaps on this hint some other person would step forward.

I am, &c

Oxford Street, June 20, 1801. SILURIENSIS.

A remarkable Case of Hydrocephalus. By Dr. SCHMITT.

THE accumulation of watery humours in the brain, and its cavities, is by no means an uncommon affection, though it has been more frequently observed in the present times than formerly; a circumstance which seems to arise from its being then mis-understood for other diseases to which infants are exposed. It is known that it generally occurs in the tender infantile age, and that the mortality of children in the earlier periods of life, derives a frequent origin from this source; but cases of its being observed in more advanced ages are rare, and deserve to be recorded in the annals of medicine. The Hydrocephalus which I am going to describe, is one of the most remarkable instances

inſtances in its kind that has ever been mentioned. The patient is twenty-four years of age, and a male. The ſkull is of a monſtrous ſize, every where oſſified, and its weight very extraordinary. Its circumference amounts to 25 inches, and the diameter, from the radix naſi to the protuberantia occipitalis, is about 17 inches. The body itſelf is proportionably ſmall, like that of a boy, as its meaſure is only, with the height of the head, 3 feet 5 inches, and, without the head, 2 feet 9 inches. The extremities are very thin and ſmall, quite paralytic and contracted, the upper extremities particularly; the hands are in a ſingular manner contorted, and lie cloſe to the inner ſide of the fore arm, which has been occaſioned by the frequent convulſive fits that come on every day, generally laſting for about a quarter of an hour. The thorax is conſiderably attenuated towards its baſis, but the back bone bent inwardly, and excavated, as it were, with a furrow; the os ſacrum is very ſtrong, being ſhaped like a vault. The head, however, remains the moſt remarkable piece of the whole. All parts of this enormous ſkull are tolerably proportioned, except the maxilla inferior, which being ſmall, bears no proportion at all with the whole; on which account, the teeth of both jaws are not ſituated one upon another, but thoſe of the upper jaw are prominent over the teeth of the maxilla inferior: A natural conſequence of this diſproportion is, that the teeth become unfit for maſtication, and the poor creature is not able to bite any thing; all his food muſt be fluid, pappy, or minced, ſo that he needs only to ſwallow it. His digeſtion is good, but his alvine excretion never proceeds by itſelf, as he is obliged to take a purgative, tea of ſenna and manna, which they give him every ſix or eight days, and which carries away a great quantity of fæces: The urine goes off involuntarily. His ſpeech is very imperfect, and conſiſts of ſome half articulated ſounds, which are only underſtood by the people that are daily about him. There is, however, no perceptible fault in the formation of the tongue. The eyes are large, unſteady, and diſtorted, and the pupils very much dilated; his mouth is extremely large, and awry. His look and phyſiognomy expreſs the higheſt degree of weakneſs of intellect; it is the mien of a ſheep or of a fool. It is very difficult to excite his attention, or to fix his continually upwards ſquinting eyes upon any ſubject; he is without any paſſion; one may however make him laugh, but his laughing is rather a grin, which is extremely diſguſting. The regio pubis is covered with long and thin hairs, and erections are ſometimes obſerved, but without any ejaculatio ſeminis. He knows nobody but the perſons that are always about him, viz. his father, a labourer; his mother,

ther; and ſiſter, a perſon twenty-ſix years of age, tolerably well-made and healthy. His mother is already advanced in years, but ſtout and healthy; ſhe had eleven children, of which only three are ſurviving, a daughter, a ſon, and the Hydrocephalicus. According to the mother's account, he ſuffered much of head-ache the firſt years of his exiſtence, which ceaſing by degrees left him in this ſtate of ſenſeleſſneſs. It is ſurpriſing how fond his mother is of him, what pains ſhe takes to nurſe him, as the poor creature, unfit for any voluntary motion, wholly depends on others for all his neceſſities. Another inſtance of an Hydrocephalus, twenty-nine years of age, is deſcribed by Dr. Michaelis, in the Medical Communications, Vol. I. 1784. It is ſimilar to the above, though his mental faculties were leſs deranged.

Account of Diſeaſes in an Eaſtern Diſtrict of London, from the 20th of May, to the 20th of June, 1801.

	No. of Caſes.
ACUTE DISEASES.	
Typhus	20
Peripneumonia	3
Acute Rheumatiſm	5
Ophthalmia	2
CHRONIC DISEASES.	
Cough	15
Dyſpnœa	12
Cough and Dyſpnœa	10
Hæmoptœ	3
Phthiſis Pulmonalis	2
Anaſarca	3
Aſcites	2
Hydrothorax	2
Cephalalgia	5
Vertigo	3
Epiſtaxis	1
Amenorrhœa	4
Chloroſis	3
Fluor Albus	5
Diarrhœa	10
Dyſenteria	2
Hæmorrhois	4
Jaundice	3
Hypochondriaſis	5
Chronic Rheumatiſm	7
PUERPERAL DISEASES.	
Ephemera	3
Menorrhagia Lochialis	4
INFANTILE DISEASES.	
Aphthæ	3
Herpetic Eruptions	7
Hooping Cough	3
Vermes	4
Dentition	2

We had the pleaſure of reporting, a few weeks ſince, that the fever, which had engaged ſo much of the attention of the medical practitioner for a conſiderable time, appeared to be on the decline, and that it was hoped it would ſoon ceaſe to make ſo conſpicuous a figure on our liſt. During the laſt two or three weeks, however, it has appeared again, and has been attended, in a number of inſtances, with ſymptoms equally violent and alarming with thoſe which have been formerly deſcribed,

ſcribed. In ſome caſes, after a conſiderable abatement of ſymptoms, and when the patient appeared to be in a ſtate of convaleſcence, the diſeaſe has returned with an increaſed violence, and a fatal termination has taken place.

The very great change in the temperature of the air, for ſeveral days, during the prevalence of the north and north-weſterly winds, has been productive of colds and coughs, and of an aggravated ſtate of ſymptoms in ſome pneumonic complaints. The extreme degree of heat which was felt for a few preceding days, had produced a change of cloathing which rendered the frame more ſenſible to the effects produced by this change of the weather.

Diſorders of the bowels, in ſome caſes connected with fever, and in others independent of it, have been very frequent.— Theſe may probably be attributed to the change in the temperature of the air juſt mentioned.

Diſeaſes admitted under the Care of the Phyſicians of the Weſtminſter Hoſpital, from the 27th of April to the 24th of June, 1801.

	No. of Caſes.		No. of Caſes.
Continued Fever	31	Hydrothorax	3
Intermittent	1	Hyſteria	2
Pleuritis	7	Leucorrhœa	3
Hepatitis	1	Lithiaſis	1
Eryſipelas	1	Lumbago	1
Variola	2	Menorrhagia	3
Amenorrhœa	4	Obſtipatio	2
Anaſarca	7	Ophthalmia	1
Aſcites	4	Paralyſis	2
Aſthenia	8	Phthiſis	2
Catarrh	5	Pleurodyne	1
Cephalæa	4	Podagra	1
Cholera	4	Rheumatiſm	14
Colic	2	Scabies	3
Diarrhœa	6	Sciatica	2
Dyſpepſia	4	Struma	2
Dyſuria	4	Tabes	3
Enterodynia	6	Tuſſis	12
Erythema	1	Vermes	1
Gaſtrodynia	6	Vertigo	3
Hæmorrhois	1		

The unuſual frequency of pleuritic and rheumatic affections, during the laſt two months, appears to have ariſen from the prevalence of cold eaſt and north-eaſt winds; but in what

manner these winds affect the *human* frame, independent of temperature, we cannot at present determine.

The Works of Hippocrates on Air, Water, and Situation, abundantly convinces us that these circumstances had attracted considerable attention in those times of almost savage health. The valetudinarian state, induced by modern luxury, in diet, clothing, close rooms, down beds, and late hours, renders our bodies far more susceptible of noxious impressions from without, than the predecessors and contemporaries of Hippocrates were. On this account it is our duty more particularly to endeavour to investigate the nature of those impregnations which render the air of certain situations less salubrious than that of others. When it was discovered that common atmospherical air contained about 21 parts of vital air, or oxygen, and 79 of azote, or nitrogen, in 100 by measure; it was hastily concluded by physiologists, that we had acquired a power of ascertaining the comparative salubrity of atmospherical air, during different winds, and in different places. For it was believed that the salubrity was proportional to the quantity of oxygen, and that this quantity admitted of considerable variation in different situations. It was however soon found, by the experiments of Dr. Priestley and Mr. Cavendish, and since confirmed by many others, that the air of open seas, or the tops of high mountains, does not differ considerably, in the proportion of those constituents, from that of the streets of London. But when we say the streets of London, we do not mean to include the rooms, theatres, exhibitions, &c. where either respiration or combustion, or both, are going on. This source of contaminated air is, however, by no means confined to the metropolis; for where-ever well-jointed sashes, double doors, double windows, or any other means of excluding fresh supplies of air from inhabited rooms are employed, there a deterioration of it must take place. The means of analyzing and correcting the water we use, are generally known; but the best means of ascertaining the proportion of oxygen contained in the air we breathe, is known only to a few chemists. We shall, therefore, present our readers with Mr. Davy's new Eudiometer.—

" The dependance (he says) of the health and existence of animals upon a peculiar state of the atmosphere, and the relations of this state to processes connected with the most essential wants of life, have given interest and importance to inquiries concerning the composition and properties of atmospheric air.

" This elastic fluid has been long known to consist chiefly of oxygen and nitrogen, mingled together, or in a state of loose combination, and holding in solution water.

" A va-

" A variety of processes have been instituted, with the view of determining the relative proportion of the two gases, but most of them have involved sources of inaccuracy; and lately all, except two (the slow combustion of phosphorus, and the action of liquid sulphurets) have been generally abandoned.

Both phosphorus and solution of sulphuret of potash absorb the whole of the oxygen of atmospheric air at common temperatures, and they do not materially alter the volume, or the properties of the residual nitrogen; but their operation is extremely slow; and in many cases it is difficult to ascertain the period at which the experiment is completed.

" I have lately employed as an eudiometrical substance the solution of green muriat, or sulphat, of iron, impregnated with nitrous gas; and I have found that it is in some respects superior to many of the bodies heretofore used, as it rapidly condenses oxygen without acting upon nitrogen; and requires for its application only a very simple and a very portable apparatus.

" This fluid is made by transmitting nitrous gas through green muriat, or sulphat, of iron, dissolved to saturation in water.* As the gas is absorbed, the solution becomes of a deep olive brown, and when the impregnation is completed it appears opaque and almost black. The process is apparently owing to a simple elective attraction; in no case is the gas decomposed; and under the exhausted receiver it assumes its elastic form, leaving the fluid with which it was combined unaltered in its properties.

" The instruments necessary for ascertaining the composition of the atmosphere, by means of impregnated solutions, consist simply of a small graduated tube, having its capacity divided into one hundred parts, and greatest at the open end; and of a vessel for containing the fluid.

" The tube, after being filled with the air to be examined, is introduced into the solution; and, that the action may be more rapid, gently moved from a perpendicular towards a horizontal position. Under these circumstances the air is rapidly diminished; and, in consequence of the dark colour of the fluid, it is easy to discover the quantity of absorption. In a few minutes the experiment is completed, and the whole of the oxygen condensed by the nitrous gas in the solution in the form of nitrous acid.

In

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* Dr. Priestley first observed this process: for a particular account of it see Researches, Chemical and Philosophical, page 152. Johnson.

"In all eudiometrical processes with impregnated solutions, the period at which the diminution is at a stand must be accurately observed; for, shortly after this period, the volume of the residual gas begins to be a little increased, and, after some hours, it will often fill a space greater by several of the hundred parts on the scale of the tube, than that which it occupied at the maximum of absorption.

"This circumstance depends upon the slow decomposition of the nitrous acid (formed during the experiment), by the green oxide of iron, and the consequent production of a small quantity of aëriform fluid (chiefly nitrous gas);* which, having no affinity for the red muriate, or sulphate, of iron produced, is gradually evolved, and mingled with the residual nitrogen.

"The impregnated solution with green muriate is more rapid in its operation than the solution with green sulphate. In cases when these salts cannot be obtained in a state of absolute purity, the common or mixed sulphate of iron may be employed. One cubic inch of moderately strong impregnated solution is capable of absorbing five or six cubic inches of oxygen, in common processes; but the same quantity must never be employed for more than one experiment.

"A number of comparative experiments, made on the constitution of the atmosphere at the Hotwells, Bristol, in July, August, and September, 1800, with phosphorus, sulphurets of alkalies, and impregnated solution, demonstrated the accuracy of the processes in which the last substance was properly employed. The diminutions given by the sulphurets were indeed always greater by a minute quantity than those produced by phosphorus and impregnated solutions: but the reason of this will be obvious to those who have studied the subject of Eudiometry. In no instance was it found that 100 parts in a volume of air contained more than 21 of oxygen: *and the variations connected with different winds, and different states of temperature, moisture, &c. were too small, and too often related to accidental circumstances, to be accurately noticed.*

"In analysing the atmosphere in different places, by means of impregnated solutions, I have never been able to ascertain any notable difference in the proportions of its constituent parts. Air, collected on the sea at the mouth of the Severn, on

* The decomposition of nitrous acid, by solutions containing oxide of iron, at its minimum of oxidation, is a very complex process. The green oxide, during its conversion into red oxide, not only decomposes the acid, but likewise acts upon the water of the solution; and ammoniac is sometimes formed, and small portions of nitrous oxide and nitrogen evolved with the nitrous gas.

on October the 3d, 1800, which muſt have paſſed over much of the Atlantic, as the wind was blowing ſtrong from the weſt, was found to contain 21 per cent. of oxygen in volume; and this was nearly the proportion in air ſent from the coaſt of Guinea to Dr. Beddoes, by two ſurgeons of Liverpool.

"If we compare theſe reſults with the reſults gained more than twenty years ago by Mr. Cavendiſh, from experiments on the compoſition of atmoſpherical air, made at London and Kenſington; conſidering, at the ſame time, the reſearches of Berthollet in Egypt and at Paris, and thoſe of Marti in Spain, we ſhall find ſtrong reaſons for concluding, that the atmoſphere, in all places expoſed to the influence of the winds, contains very nearly the ſame proportions of oxygen and nitrogen: a circumſtance of great importance; for, by teaching us that the different degrees of ſalubrity of air do not depend upon differences in the quantities of its principal conſtituent parts, it ought to induce us to inſtitute reſearches concerning the different ſubſtances capable of being diſſolved or ſuſpended in air, which are noxious to the human conſtitution; particularly as an accurate knowledge of their nature and properties would probably enable us, in a great meaſure, to guard againſt, or deſtroy, their baneful effects."

The moſt obvious impregnation of the atmoſphere is that with diſtilled water; and many people have taken up an opinion, that, independent of *miasmata*, the only noxious qualities of the atmoſphere depend on its moiſture, or the quantity of water diffuſed through it, when the thermometer is near 32°, or, as they expreſs it, "when cold and moiſture are combined;" but we ſhall endeavour to ſhew, on ſome future occaſion, that this opinion is not well founded.

Account of an Endemic Disease in Norway, called RADESYGE.

ANY bad or foul diſeaſe is called by the common people in Norway, *Radesyge* (from Rade, bad, foul) but the diſeaſe which is particularly meant by this name, was thought by ſome phyſicians to originate from the Oriental leproſy, or elephantiaſis, and to have been tranſplanted into Norway in the times of the cruſades. This conjecture, however, ſeems not to be well grounded, though the diſeaſe ſometimes approaches in its ſymptoms to that evil. It is rather probable that it has a venereal origin,

origin, as appears from the deſcription Dr. Munk gives of it, who had frequently an opportunity of making ſeveral obſervations on its nature, and the method of curing it.

" The diſeaſe begins ſometimes with topical complaints, chancres, buboes, gonorrhœas, &c. but moſt frequently it comes on with wandering pains, increaſing during the night, which are followed by ulcers in the mouth, attacking by degrees the *uvula*, the *velum palatinum pendulum*, and the palate bones; at the ſame time piles appear round the anus, and ulcers on the body, particularly about the ſhoulders and the belly, which have the appearance of venereal ulcers, but are frequently covered with a thick cruſt. In ſome caſes excreſcences come on inſtead of the ulcers. The Radeſyge differs particularly from the lues, by appearing without any previous topical complaints. Sometimes the diſeaſe proceeds ſo ſlowly, that the patient may walk about for ſeveral months without ſuffering much inconvenience; but in other caſes its progreſs is very rapid. Nothing certain can be ſaid with reſpect to the manner of infection and propagation, as moſt patients are ignorant whence they obtain it, though others have apparently contracted it by a concubitus impurus. It is eaſily propagated, as the common people in Norway ſleep together naked under woollen coverings, or in the mountainous parts on ſkins, the hairy ſide of which is turned towards the naked body; and a principal cauſe of its propagation is the extreme uncleanlineſs that prevails there among the lower ranks of people.

" The beſt remedies againſt that diſeaſe, are decoctions of Lignum guaiacum, ſarſaparilla, &c. and principally mercurials, given till they bring on a copious ſalivation. No particular regimen is to be obſerved.

" Exanthemata of the very worſt kind, accompanied with knobs in the ſkin, inſupportable itching, offenſive ſmell, falling off of the eye-brows, and other ſymptoms, which impart to this diſeaſe the character of leproſy, or elephantiaſis, are ſometimes obſerved in that country; at which no perſon will be ſurprized when he conſiders that a great part of its inhabitants are frequently on the ſea in cold and wet ſeaſons, drink a large quantity of brandy, and live upon putrid and ſtinking fiſh, to the exhalation of which they are continually expoſed.

Pharmaceutical

Pharmaceutical Processes.

SCHMIDT's *ſhort and easy method of preparing the Æthiops antimonialis.*—The common proceeding, according to which the quickſilver is combined with the antimony by trituration, being very long and tedious, Mr. Schmidt endeavoured to find out a ſhorter way of obtaining that preparation, which is the following. Half an ounce of pure quickſilver is mixed with one drachm of ſublimed ſulphur in a ſmall crucible, which is put into hot aſhes, and the mixture continually ſtirred till the ſulphur is melted. The mixture became ſoon grey, but as the globules did not yet diſappear, half a drachm more of ſulphur was added, and being melted, the quickſilver totally diſappeared, and the whole mixture became grey and homogeneous. After it had been ground in a ſtone mortar, one ounce of antimonium crudum was added; and in this way an Æthiops antimonialis was obtained in the ſpace of three hours, in every reſpect equal to that which is prepared by mere trituration in the ſpace of ſome days.

BOUILLON-LAGRANGE's *method of preparing the ſyrup of quickſilver.*—This mercurial preparation was firſt invented by Mr. BELET, and is much recommended by PORTAL. There are ſeveral methods of preparing it, all which, however, afford a very imperfect preparation, on account of the quickſilver ſeparating itſelf from the mixture, and falling to the bottom of the veſſel when it is kept but a little time. The quickſilver ſyrup of BOUILLON-LAGRANGE, though it agrees on the whole with that of BELET, is yet preferable, becauſe it is not ſo eaſily decompoſed, and may ſtand a long time without producing a precipitation of the quickſilver. It ought never to be taken with any thing warm, as the quickſilver is immediately precipitated in form of a yellowiſh oxyd. The mode of preparation is the following. Prepare a ſolution of pure quickſilver in nitric acid; let the nitrated quickſilver cryſtalliſe, and diſſolve theſe cryſtals once or twice in diſtilled water, by which means a pure ſalt is obtained. Make a ſimple ſyrup, by diſſolving 1 ¾ pound of ſugar in one pint of diſtilled water, and clarify and filtrate this liquor. Diſſolve 93 grains of the above cryſtals of nitrate of quickſilver in a ſufficient quantity of pure diſtilled water. The ſyrup being cold, add to it this ſolution, and then mix in the whole fluid half a drachm of pure nitrous ether. The ſyrup, that is thus prepared, remains perfectly clear ſeveral days.

VAN-MONS's *method of preparing muriatic ether.*—The difficulties that attend the preparation of muriatic ether, chiefly originate from the oxygen of the muriatic acid acting longer on the alkohol than is neceſſary for changing it into ether, by which circumſtance an oily mixture is produced. By the proceeding of Citizen VAN-MONS, this difficulty ſeems to be removed. It is as follows:

Place in a ſand bath that is heated by degrees the retort of Woulf's apparatus, which only conſiſts of a round receiver with a ſhort neck and two adopters. Put into it 1,00 of any weight that you chooſe of muriate of natron, which is perfectly dry, and pour into the receiver and the two veſſels the ſame quantity of pure alkohol. The openings being accurately cloſed, and the laſt adopter ſecured by an additional pipe, pour on the ſalt in the retort 0,50 of concentrated ſulphuric acid, and ſuffer the operation to proceed in the cold for five or ſix hours. Make a gentle fire at firſt, but increaſe it by degrees. The muriatic acid paſſing over in a gaſiform ſtate, combines itſelf with the alkohol. It is of uſe in this operation to dip the joined pipes into alkohol, which greatly promotes the abſorption of the gas. Sometimes it happens, that the alkohol paſſes over from one adopter to the other, in which caſe it is requiſite to change them, and join that with the receiver which contains the moſt alkohol. All muriatic acid being gone over, the liquors of the different veſſels are put into the retort, after the ſalt is taken out. They form a ſtrong muriated alkohol. Add now to the liquor 0,20 of oxyd of manganeſe, and put into the receiver and the two adopters a quantity of a ſolution of cauſtic kali, and let it diſtil carefully by a gentle heat. This alkaline ſolution is intended to abſorb the ſuperabundant acid, and to prevent the proceſs which makes the ether become a kind of oil. Notwithſtanding all poſſible care, it cannot be avoided, that a greater or leſs quantity of the ether is decompoſed by the acid, and likewiſe the oxygenated muriatic acid that is combined with the alkali in ſome meaſure acts there. The ether thus obtained, is mixed with double its weight of diſtilled water, and rectified over a gentle fire. A muriatic ether may be obtained by diſtilling in the ſand-bath a mixture of alkohol and oxygenated muriate of alkali in the proportion of 1.00 to 0.25.

To

To the Editors of the Medical and Physical Journal.

Gentlemen,

I Transmit you the inclosed case for your valuable Journal, if you should deem it worthy of insertion. I am, &c.

Ewel, Surry, June 9, 1801. E. PITTS GAPPER.

ON the 3d of April I was desired to visit a young man, of a scrophulous habit, who was ill of an inflammatory affection of his lungs, which was accompanied with the usual symptoms of cough, fever, &c. But as the disease itself did not differ in its appearance from what is generally observed, until the symptom which is the subject of this paper came on, I do not think it necessary to detail its progress, only premising that he was bled twice, that the blood was inflamed, but not highly so; that blisters were repeatedly applied to the thorax, and that antimonial, saline, and aperient medicines were administered, as circumstances required, with a strict attention to an antiphlogistic regimen, though without any apparent advantage being gained by it.

On the 19th he was seized with a hiccup, the most violent, distressing, and incessant I ever witnessed; it was loud enough to be heard in the street at the distance of several yards from the house, and continued without even ceasing a single minute for near *eighty hours*, before any relief was obtained. The pulse, during this period, was small, and fluctuated from 120 to 130 in a minute. I was not remiss in employing whatever remedies I judged most likely to be of service. Musk, assafœtida, amber, æther, volatiles, and opium were given, variously combined, at short intervals, and in considerable doses. A large blister was applied to the region of the stomach, and fomentations to the feet. At the end of the above-mentioned period not the least abatement could be perceived, the hiccup continuing as loud, as violent, and as incessant as ever. I began now to despair of my patient; when, as every thing else had failed, it occurred to me to employ opium by friction, in the manner I had seen it recommended in your useful Journal, in cases of delirium attendant on typhus fevers. I therefore ordered, on the evening of the 21st, two drachms of tinct. opii, mixed by means of a little yolk of an egg, with the same quantity of oil of almonds, to be rubbed into the thighs, and to be repeated every eight hours. Care was taken by my assistant that it was properly done, and that the friction was con-

tinued until the whole was abſorbed. When I ſaw him the next morning the liniment had been twice uſed, and I was much pleaſed to find with ſome effect. He was much more compoſed than on the preceding night, and though the hiccup was ſtill as frequent as ever, yet it was leſs violent and loud. The pulſe was alſo reduced to 112. Encouraged by theſe flattering circumſtances, I ordered a continuance of the liniment. On the morning of the 22d he was in much the ſame ſtate as on the preceding day; but, in the evening, I was happy to find that intermiſſions, though ſhort ones, had taken place. On the next day, the 23d, the intermiſſions were increaſed in frequency, and were extended to the length of half an hour or more; and the pulſe was reduced to 90. The liniment was continued as before. From this time the hiccup became leſs frequent and violent, and the intermiſſions longer, until the 25th, when it wholly left him. The remainder of the caſe, as not being connected with the ſubject, it is unneceſſary to relate; it is ſufficient to ſay that my patient ultimately recovered.

During the uſe of the liniment he took no other medicine than the ſimple ſaline draught, and ſo far from the bowels becoming conſtipated under its uſe, it was not even neceſſary to give him any aperient medicine during its exhibition. It occaſioned a conſiderable degree of drowſineſs, but not in any degree to excite the leaſt alarm. The quantity of tinct. opii uſed was two ounces in the ſpace of little more than three days; a quantity which could not have been exhibited in any other way without the moſt imminent hazard and danger. Such a wonderful effect as is here related naturally leads the mind to ſpeculate on the modus operandi, and to diſcover why a certain quantity of opium may be conveyed into the ſyſtem through the abſorbents, not only without detriment, but with great and decided advantage, which if admitted into the ſtomach would probably occaſion death. I ſhall not enter into ſuch a diſquiſition, as many and repeated experiments, and much reflection, are neceſſary to give a ſatisfactory explanation. I ſhall only be happy if, in ſimilar circumſtances, it may prove as efficacious in other hands as it has done in mine.

On the Use of Cold Water in Cases of Old Ulcers.

EIGHT years since, being in a state of convalescence, I took a tour thirty miles up the country, to a place called Inchmarnoch, that I might have the benefit of a change of air, and a milk diet. This place being only a short distance from a well, much frequented by diseased persons, called, from its situation, Pananach Well, I had the curiosity to make frequent visits to it, that I might mark its effects. It is situated in a mountainous romantic country, and is very pleasant in the summer season. The vallies are plentifully supplied with fragrant birch, and the pure air descending and mixing with their odours in every gentle breeze, owing to the loftiness of the hills, renders the scene particularly agreeable. The well is situated upon the side of a hill, and consists of two springs, which are very near each other, and yield a considerable quantity of water, part of which is conveyed by a pipe into a large wooden trough, called a bath, placed in a house for the purpose of immersing the whole body; the remainder of the water runs down the hill in an irregular channel, which it has formed for itself. There are no buildings round the well to add to its appearance or convenience, except the scenery of Nature, and a small house near the well which affords but little convenience to persons who are diseased. About an English mile from the well there is a building called Pananach Lodge; this is set apart for ladies and gentlemen, the poorer orders of patients having no accommodation allowed them. Those who cannot afford to reside at the Lodge, are under the necessity of repairing to some of the farm-houses, two, three, or four miles distant, such as Refantrach, Baletrach, Grey-stone, and Dee-castle; each of these generally accommodates convalescents with lodgings and goat-milk through the summer. During my stay in this country, a number of diseased persons were attending the well, and applying the water; among whom there were four with old and foul ulcers; five with scrophulous ulcers, affecting the joints and glands of their necks; one with ancylosis of the knee, accompanied with hectic fever; three with stones in their urinary bladder; three with phthisis pulmonalis; one man with a large phagedenic ulcer upon his leg; and several with herpes upon various parts of their body. Those who were affected with ulcers, applied the water in the following manner: they took pieces of linen, and after dipping them in the water, and bathing their sores for five minutes or a quarter of an hour, laid the wet cloths upon the sores, and changed them as soon as they became dry. This

was the general mode in which they used the water, but many of them bathed their whole b dy once or twice every day, and they all used a great quantity of the water internally. Those who were affected with stones in the bladder, drank great quantities of the water, and used the exercise of walking afterwards. The diet of many of the poor patients is only oatmeal and water, which they boil together and call *pottage*. Milk is frequently so scarce, and was so at that time, that few of them could procure it. Most of the patients who were making trial of the water, had been dismissed as incurable, either from hospitals, or by individual practitioners, and had been advised to make trial of the water. Many of the ulcers had a very bad appearance, and the cases in general were of the worst kind. I could perceive in a very short time that the mode which they took of applying the wet cloths to their sores, was the very best for giving the water a fair trial. This I was more convinced of, after I had seen its effects. Within a fortnight I could discern a material alteration in the appearance of their sores; instead of being foul, and having callous edges, their whole surface was of a redder colour, and full of new granulations of flesh. Several of the scrophulous sores which were not accompanied with an affection of the bone, in a very short time had every appearance of healing. Even where there was an affection of the bone, the sores put on a more favourable appearance. There was a case of scrophula, where the glands of the neck were much swelled, with two large ulcers upon one side, and one upon the other; in this case the wet cloths had a very quick effect in reducing the size of the tumours, and cleansing the surface of the ulcers. There were several of the cases of scrophulous ulcers combined with an affection of the bone; in these it could not be expected to be attended with much benefit, yet even here the sores looked better; the fetid smell was much lessened, and the patients more vigorous. In the cases of herpes it was also attended with advantage; it soon removed the crusts, and produced a more inflamed surface, which afterwards quickly healed. In a case of herpes upon the leg, and one upon the face and nose, the application of the wet cloths proved a cure. In a case of herpes attended with swelling of the leg it excited much pain and increased the inflamation; the patient continued the use of the water, and after being some months at home the herpes healed. The persons afflicted with stones remained much in the same state except being better in health. I have been told, that in some cases the water has been known to bring away stones; this may happen when they are small and capable of passing through the ureters or urethra, but when they are larger it cannot have any effect in

this

this way. The quantity of water which some of these patients drink is almost incredible. If a stone were obstructing the mouth of the bladder, by drinking too much water the pain would be increased; this happened to be the case with one of the patients. It appears from the foregoing observations, that the Pananach water is attended with advantage as a topical application to old ulcers and herpes. In other complaints I cannot ascribe the benefit to it, but rather to the pure air of the country. It were worth while to enquire whether the advantage is derived from the nature of the water, the mode of its application, the change or purity of the air, or other circumstances. Patients who repair to wells of this kind place great confidence in the water, and use it with uncommon perseverance. This contributes to keep the sores clean, and allows the stimulus of the water to act more powerfully.—The Pananach water contains a large portion of iron, which is held in solution by the carbonic acid. The bottom and sides of the channel, which conveys the water from the well are covered with a yellow crust (the creta ferrea of Fourcroy) which it deposits upon being exposed to the air. But to ascertain the presence of iron with more precision, I added to the water a little of the tincture of galls, which converted it into a high purple colour.—These were sufficient evidences of its being a chalybeate water, and of course a very powerful tonic. When applied, therefore, to sores it must have a very powerful action upon them. This was evident, for in the course of a few days I observed an inflammation induced by the stimulus of the water, and a new action in the morbid part. The water is always cold even in the warmest day of summer; this also contributes, by reducing the excess of heat in the part, to add to the stimulus which it possesses. The method in which the patients apply the water is well adapted for giving it full effect; and as they have nothing to do but take care of their sores, they are continually renewing the wet cloths, which keeps them sufficiently easy, without the aid of ointment, and frees the sores of all the purulent matter. To ascertain whether any other water would be as effectual as the Pananach, I made application of common spring water, and also of the Spa well at Aberdeen, which is a strong chalybeate water, in several cases of old ulcers. The alteration in the appearance of the sores was nearly similar to what happened at Pananach, when the patient used the same attention in applying it, and renewing the wet cloths. From this I conclude that all kinds of water possessing coldness, and a due proportion of carbonic acid, are beneficial in the cure of old ulcers, but more especially the chalybeate. It is not often that we can get patients to use any other water in the same manner, or with the

ſame care and degree of confidence as they do the Pananach; and even the patients who have been there, relax in their attention as ſoon as they go home, and are, therefore, diſappointed of a cure. They erroneouſly imagine that no water will have the ſame effect, and leave off applying any thing to their ſores. Some of them, however, apply leaves of plantain, ivy, or ſuch like, which ſoon reduces them to their former degree of foulneſs. Were they to take my advice, I would order them to continue the application of cold water after the ſame manner as they did at Pananach, which would, from what I have witneſſed, be frequently attended with a complete cure. The pure air at Pananach is certainly very ſerviceable in many caſes, and frequently produces a more vigorous ſtate of the ſolids in general, eſpecially when it is accompanied with a nouriſhing diet. This is what a number of thoſe who go to Pananach cannot procure; yet in general they appear more vigorous even with what ſuſtenance it affords. When the body is invigorated by whatever means, it muſt produce an alteration upon the ſtate or condition of the ulcerated ſurface. This is to be conſidered, therefore, when we are comparing the advantages derived from this and the water in cities, where patients have not the opportunities of breathing ſuch pure air. Therefore, when people can get to a part where they can breathe a pure air, and make uſe of chalybeate or medicinal water of any kind at the ſame time, they will have a greater chance of cure. The ſummer ſeaſon is chiefly the time for uſing the water to moſt advantage at Pananach. In the winter the country is ſo cold and barren that none attend it. Patients with ulcers can, however, in almoſt all parts, procure good ſpring water, which they may ſubſtitute for it with advantage; and in Aberdeen they have a chalybeate ſpring which is in no reſpects inferior to the Pananach, except in its ſituation. From what I have ſeen of the good effects of wet cloths applied out of cold water to old ulcers, I am led to conſider it as one of the moſt powerful and effectual agents which can be uſed, or has yet been diſcovered. I would recommend a faithful trial of it in every caſe deemed incurable. I would adviſe the patients to perſevere in uſing it a ſufficient length of time, otherwiſe no cure is to be expected. The length of time requiſite for its ſucceſs is always proportioned to the virulence of the ſores, their number, ſize, and nature.

ANDREW FERGUSON.

To

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

AMONG the incalculable and rapid improvements of the paſt century, mankind have, perhaps, in *no inſtance* been more benefited than by the advances which have been made in the *healing* art: And though the progreſſion has been truly great, there are, yet, no reaſons to conclude we have reached the acme of knowledge, or arrived at the ne plus ultra of medical ſcience. There is more to accompliſh; and it behoves every practitioner to promote, by all means in his power, the furtherance of uſeful information.

> Qui ſtudet optatam curſu contingere Metam,
> Multa tulit fecitque puer.—— HORACE.

Though our predeceſſors have done much towards the relief of ſuffering humanity, yet has it been left for the preſent period to glory in *very* important diſcoveries, and make its boaſt of characters, whoſe unceaſing endeavours have been crowned with copious ſucceſs, whoſe active exertions have been emblazoned with the moſt brilliant luſtre. Witneſs the indiſputable extermination of that dire ſcourge of nations, the Small-pox, by whoſe deſtructive ravages thouſands have been impetuouſly precipitated to " that bourne from whence no traveller returns." A Jenner has been ordered to arreſt its inſatiate rage, and inſtrumentally to ſave mankind from a devouring malady by a benign and effectual agent, whoſe effects on the ſyſtem are comparitively trifling, and which bears with it this important recommendation, *'Tis not contagious.**

Improvements in ſurgery deſerve our regard, and particularly ſimplicity in operations, whereby the ſufferings of the patient are leſſened, while the operator is not ſubject to embarraſsment by that farrago of inſtruments uſed by ancient ſurgeons. I would, here, juſt glance at the decided preference of puncturing in the linea alba with an impoſthume lancet, to the very crude method of violently (and always uncertainly) thruſting through the parietes an uncourtly trocar, in paracenteſis. I have twice performed it in my own practice, and have witneſſed it in ſeven inſtances on one patient in this neighbourhood, where I had the honour of being called to aſſiſt a late ſenior practitioner

* The profeſſion ſhould do all in their power to remove from the minds of their acquaintance, that prejudice which is certain, *for ſome* time, to operate, againſt innovations.

practitioner at Wellingbrough. In none of the cases was there the smallest difficulty, or the least prevention, to union by the first intention; while the pain given by the lancet was very inconsiderable.

Great also have been the improvements in the management of foul asthenic ulcers, which have frequently baffled many practitioners, and been seriously offensive, *as* well as exquisitely painful, to the subjects of them. I observe, in your last Journal (page 562), Dr. Stutz's ideas relative to their cure by the caustic alkali; and I am happy in being able to add to the stock of information on that subject. I have in many cases used the following solution with invariable success: ℞. Argent. nitrat. gr. ij. aq. ferventis ℥j. tinct. opii. ʒij. ft. solut. The ulcers are covered with lint made wet with this solution, and a bandage of thin flannel constantly worn. In three or four days a disposition to sloughing appears, and the cure will be effected by the ointment as follows: ℞. Hydrarg. nit. rub. ʒj. pulv. opii. ʒss. tere simul & misce sedulo cum ung. res. flav. ℥i. ft. ung. By means of this ointment *alone* I have cured several ulcers of this nature; first, however, removing their indurated edges with a scalpel; for there will be no disposition to healthy granulation during *their* existence. The very *inert* nature of those ulcers must have been frequently noticed by every practitioner, and nothing can be more rational than to attempt their cure on the principle of destroying such sluggish tendency, by inducing new action by brisk *stimuli*, the *preferable* of which, in my opinion, is the solution above recommended.

Two cases of a very inveterate kind have lately come under my care; but in *none* have I had occasion to use a stronger solution, or to adopt a different mode of application.

I am, &c.

Higham Ferrers, 8th June, 1801. THOMAS PECK.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN no inquisitive age has there existed a moment more favourable than the present for illustrating a great physiological problem; I mean the influence of the condition of parents on the number and condition of the progeny. One cannot help fearing that, in consequence of the long and severe scarcity, a degradation

degradation of the ſpecies, partially begun in certain manufactories, will become general and permanent among us.

The political œconomiſt will attend to the proportion of births and marriages during this moſt diſaſtrous period. The medical philoſopher will look more cloſely into the ſubject. Nor will any thing ſhort of a body of information concerning the ſtate of new-born infants ſatisfy him. Without ſtopping therefore to demonſtrate the propriety of the inveſtigation, I propoſe to thoſe who have opportunities of obſervation the following queries:

1. Have the children of the poor of late come into the world more puny, meagre, or ſmaller, than in more plentiful times?

2 Have they appeared to die in greater numbers ſhortly after birth and with what preceding ſymptoms?

I alſo wiſh to know,

3. Whether miſcarriages have been more frequent among this claſs? And,

4. Whether the mothers have recovered more ſlowly, and been ſubject to greater loſſes of blood?

June 7, 1801. THOMAS BEDDOES.

To Dr. BRADLEY.

My dear Sir,

I Have ſent you two papers of which I lately ſpoke to you. The firſt relates to a diſeaſe which I do not conſider as very uncommon, yet which is not deſcribed in any Syſtem of Noſology or Practice of Phyſic which I am acquainted with. It is a variety of œdema, which differs in a great number of circumſtances from all other œdematous ſwellings, and which, on account of the ſuddenneſs of its appearance and departure, and the frequency of its attack in a ſhort ſpace of time, I have preſumed to call *Oedema Fugax.*

The other caſe is much rarer, and is equally undeſcribed. If you deem theſe papers worthy of being made public, you are at perfect liberty to inſert them in your Journal. I am,

Dear Sir,

Your's very ſincerely,

Clifford Street, June 10, 1801. A. CRICHTON.

I. *Case of Oedema Fugax.*

A widow lady, upwards of 60 years old, of a good healthy conſtitution, which had not been injured by any intemperance or irregularity of life, was ſuddenly ſeized one evening, about a month ago, with a confuſed pain in her head, giddineſs, and general uneaſineſs; ſoon after which her face and the back of her hands began to ſwell, and increaſed to a prodigious ſize. She became feveriſh, according to her own deſcription, and paſſed the whole evening and the greater part of the night in pain and anxiety. Her eye-lids were ſo ſwollen, ſhe ſaid, that ſhe could ſcarcely ſee. Towards morning ſhe became better, fell into a ſleep, and awoke almoſt entirely free from all the above-mentioned ſymptoms; but ſhe felt great weakneſs, and a total loſs of appetite. Her face and hands ſtill remained a little ſwelled, but in ſo trifling a degree, in compariſon with what had happened the night before, that ſhe paid no more attention to them; and imagining the whole to proceed from indigeſtion, ſhe took, of her own accord, a domeſtic purge, which ſhe had occaſionally taken to obviate coſtiveneſs. The medicine operated well, but did not improve her appetite, which ſeemed quite gone. In the afternoon ſhe again began to grow uneaſy, and to ſuffer from head-ach, and again her face and hands ſwelled greatly. She paſſed a bad night, and ſent for me early the next morning.

When I ſaw her, which was about noon, ſhe had no other remains of the ſwelling than a little puffineſs under each eye, and on the back of the hands. Her tongue was foul, but not greatly ſo; her ſkin was of a natural degree of heat; the pulſe beat about 96 in a minute, and was full and hard, but the hardneſs of the pulſe did not ariſe ſo much from a quick and full diſtenſion of the artery as from that rigidity of the coats of the artery which is natural to old age.

I was informed that there was not any thing uncommon either in the quantity or quality of the urine ſhe paſſed, or in her ſtools; ſhe had not the ſmalleſt appetite. The lighteſt ſoup, if it taſted of meat, diſguſted her, yet ſhe had not any nauſea, or any bad taſte in her mouth.

As her bowels were perfectly open, and had been thoroughly evacuated, according to report, by the medicine ſhe had taken the day before, and as ſhe complained much of a ſenſe of general weakneſs, I ordered her the following tonic and gentle aperient combined:

℞. Pulv. rad. columb. gr. viij. Aq. cinnamon ʒij. Aq. diſtillat. ʒx. Tinct. rhæi. Tinct. card. comp. aa. ʒſs. M. ft. hauſtus 6ta. q. hora ſumendus.

When

When I saw her next day, she informed me that she had had a severe return of her complaint, and had passed a very restless night. She felt a little stronger, however, but her appetite was as bad as it had been the day before: Her face and hands were swelled when I visited her, but only slightly: The skin was colourless, but had a glossy hue, and appeared to be distended by a serous fluid. When the finger was pressed on the tumefied parts, it left an impression only for a short time, and by no means so distinct as in anasarca: She had had two stools, which were of a healthy aspect. Her tongue was still fouler than it had been the day before, yet she had not any disagreeable taste in her mouth, or great thirst, or head-ach; but as these symptoms had occurred in the beginning of her complaint, and as the colombo did not agree with her, I suspected her stomach might be loaded with offensive matter, and accordingly I ordered her an emetic, consisting of fifteen grains of ipecac. and one grain of tartar emetic, in a draught. I likewise ordered her six grains of calomel, in a pill, at bed time.

I was informed the next day that the emetic had operated rather powerfully, but that there was not any thing uncommon in the appearance of what she had vomited. It consisted almost entirely of the fluid she had drank, and a little mucus from the coats of the stomach: The swelling had occurred both in the middle of the day and towards evening. Her appetite was as bad as ever, and she now complained of great weakness.

In the course of my practice, I had met with a few cases which were nearly similar to this, in which I had pushed tonics in the beginning, both alone and combined with diuretics, and also with gentle purges; but in all which cases, I thought they had done harm. Still I was tempted to have recourse to them again in this case, and I ordered my patient two scruples of cream of tartar, with a few grains of ginger, morning, noon, and night, with a view of acting on the kidneys, and desired her to take two ounces of the decoction of yellow bark, with a drachm of the spt. juniperi, after each dose of the powders.

These did no good: She was in every respect the same next day as she had been the day before, except that she was weaker. She had voided more urine than usual, yet the swellings returned in as great a degree as before: Her tongue was still of the same dirtyish yellow colour, and she had not the smallest appetite. There were still two resources which I had my choice of in such a case: the one was to lay aside all medicine, and give my patient as much light food as possible, and trust to Nature; the other was to give wine and mercury in

moderate doſes, which medicines I ſuſpected, from ſome diſtant analogies which had preſented themſelves to me, might be uſeful. I preferred the laſt, for the ſake of inſtruction, and accordingly ordered my patient a glaſs of port wine every four hours, and five grains of the pilula hydrargyri every night. I did not ſee her again until the ſecond day afterwards, when I was moſt agreeably ſurprized by her telling me, that ſhe found her appetite return after the third doſe of her wine, and that ſhe had paſſed a tolerably good night, but ſtill had ſome return of the ſwelling. The next day ſhe was ſtill better, and her appetite was become keen; her tongue was clean, her pulſe good, and there were ſcarcely any remains of the ſwelling. In a few days ſhe was quite well.

Of this kind of œdema, the caſes which I have met with, have either yielded very eaſily to evacuations and gentle tonics, or proved very obſtinate, and reſiſted almoſt every medicine. In one caſe which ſucceeded an intermittent fever, which had been very much neglected for many months, and had been badly managed afterwards, an hectic fever occurred, which proved fatal. I was ſurprized to obſerve how ſuddenly the ſwelling occurred in this caſe, and to what a degree it ſometimes aroſe. When it occupied the face, the patient was completely disfigured, and the palpebrae became ſo much diſtended, as to cloſe the eyes entirely. Sometimes the feet and legs only were ſwelled; and this did not depend on any particular ſituation, but occurred both when the patient was in bed, and when ſitting up, ſo that in this reſpect it differed very much from common anaſarca.

Not only the immediate or proximate cauſes of the ſwelling in this diſeaſe are involved in great obſcurity, but the exciting cauſes alſo are very obſcure: Whatever the immediate cauſes may be, it is evident that their action is very tranſitory. Any ſwelling containing a fluid, or gelatinous exſudation, may ariſe on the one hand, either from a morbidly increaſed or diminiſhed action of thoſe ramifications of the arterial ſyſtem which ſecrete colourleſs fluids, or on the other hand, from a torpor, weakneſs, or kind of palſy in the abſorbents. This laſt cauſe, however, only determines the ſwelling, but not the nature of the fluid effuſed. In the abovementioned caſes, the fluid appeared to be gelatinous, and we are therefore induced to believe, that the ſecreting veſſels were as much in fault as the abſorbents, for it is not a gelatinous fluid which is uſually ſecreted in the cavities of the cellular ſubſtance. This ſuppoſition, however, aſſumes a poſition as being granted, which is by no means well made out: I mean, that moſt of the altered appearances, or qualities of ſecreted fluids, depend

pend on the action of the veſſels which ſecrete them. This ſuppoſition is doubtleſs ſupported by a multitude of facts; but there are alſo many facts which ſtand in oppoſition to it, and incline us to believe, that there are chemical changes occurring in every part of our frame, independently of all vital actions, and which have a great influence on the ſecretions of every kind. In a diſeaſed ſtate theſe are frequently multiplied, and new compounds are formed which produce the moſt ſingular phenomena, ſuch as eruptions, hæmorrhagies, ſwellings, and ſpaſms; but the nature of theſe chemical changes are almoſt entirely unknown to us; and if they were known, it is extremely doubtful how far they would ſerve us as uſeful guides in practice. In the above-mentioned caſe I directed my efforts at laſt to the altering the general action of the ſanguiferous and abſorbent ſyſtem rather than to the correcting any particular chemical acrimony.

II. *Cases of an hitherto undescribed Cause of Jaundice.*

The jaundice which I am about to deſcribe is unfortunately always a fatal one in its advanced ſtages; and what adds to the misfortune of ſuch a circumſtance is, that it cannot be diſtinguiſhed in its commencement, as far as I know, from the more favorable ſpecies of icterus. Although, therefore, I have not the ſatisfaction to ſuppoſe that I ſhall contribute any thing to the general good of mankind by this communication, yet I hope to render a ſervice to practitioners, by pointing out a ſymptom which will warn them of the truly deſperate ſituation of their patient, and enable them to foretell to the patient's friends, in ſufficient time, the melancholy nature of the caſe.

The firſt inſtance of this kind of jaundice which I met with, was that of an old woman who was admitted into the Weſtminſter Hoſpital nearly five years ago.

The whole of her ſkin and the tunica albuginea of the eyes were of a deep orange colour, her urine was alſo of a deep orange colour, and depoſited a thick dark-coloured ſediment on cooling; ſhe had great languor and ſenſe of weakneſs, but ſhe had fewer dyſpeptic ſymptoms than are commonly met with in jaundice. Her appetite was good, her tongue was quite clean, ſhe had no bitter taſte in her mouth, nor had ſhe any head-ach, but ſhe complained much of thirſt, and of a ſevere purging with which ſhe had been ſubject two or three days before ſhe applied for admiſſion into the houſe. This patient had never had any pain in her right ſide, neither was ſhe affected with cardialgia, nauſea, or much flatulency. Her pulſe was of the natural quickneſs, but was ſmall and feeble.

Her complaint began about a fortnight before ſhe came to the

the hospital. It was so imperceptible in its progress, and attended with so little uneasiness of any kind, that she had not applied before for any advice.

As the diarrhœa was evidently of a critical kind, and she was sinking under it, it was the first object of my care. I ordered her a gentle cordial with four drops of laudanum to be taken every four hours, and gave orders that she should be frequently supplied with light mild nourishment.

The diarrhœa was at first stopt by the laudanum, but began to make its appearance again in about fourteen hours, and in thirty hours was as bad as at the beginning. I then ordered her to take the confect. opiata with the cretaceous mixture every four hours. This at first checked the diarrhœa, but it again began to return in ten or twelve hours; and although I had left orders to increase the quantity of opium, yet it was not checked, but returned at intervals, and in two days was as bad as ever, although at that time the patient took nearly one grain of opium every four hours. I now had recourse to other astringents, particularly the extractum ligni campechensis, and ext. catechu, but these did not check the diarrhœa in any degree; it increased notwithstanding every effort was made to stop it, and the patient died quite exhausted on the sixth day after her admission into the hospital. To the last moment her stools continued of a pale clay colour. Her pulse never varied in quickness until near her death, when it suddenly rose to about a hundred in a minute. The colour of the skin and of her urine became of a more and more intense yellow colour during the whole period of her complaint.

Upon inspecting the body, the cause of the disease soon presented itself. There were no gall stones either in the gall bladder or in the ductus communis choledochus, but the gall bladder and its duct, and the ductus hepaticus, were distended with bile to a preternaturally large size. It was not possible to force any of the bile into the duodenum; and upon seeking for the cause of this obstruction, we soon found that a portion of the ductus communis was surrounded by the extremity of the pancreas, which was completely in a scirrhous or indurated state. The duct was so much compressed that it was impossible to pass the smallest silver probe through it without tearing it.

Another case similar to this presented itself to me about a year afterwards in another old woman, who also was admitted a patient of the Westminster hospital. The disease was completely formed before she applied for relief. She had no pain in her side, but was troubled with flatulency. A diarrhœa had come on a day or two before her admission into the house, and what she voided in this way she said was very pale. As soon as I ascertained

tained the truth of this, I communicated to the pupils who were preſent my ſuſpicions of the caſe being a fatal one, and told them what I ſuſpected to be the cauſe of the complaint. I ordered a large doſe of ſtrong mercurial ointment to be rubbed in every night and morning, and gave her aſtringents combined with cicuta, but the relief ſhe obtained was as temporary as in the firſt caſe, and ſhe died in a few days quite exhauſted. The body was opened after death, and the very ſame appearances diſcovered.

Since that time I have only met with one caſe in private practice which I conſidered as ſimilar to theſe. It occurred in a gentleman of about fifty years of age, who had enjoyed tolerably good health until he was attacked with this complaint. I am ſorry to ſay I could not verify my ſuſpicions as to the real nature of the caſe, inaſmuch as I was denied the permiſſion of examining the body.

Melancholy as theſe caſes were in regard to their event, they afforded me a certain degree of ſatisfaction, both by teaching me a new fact in the hiſtory of jaundice, and by correcting an error which I had long entertained, and which I have reaſon to think is very common: I mean, that a great number of the anomalous ſymptoms of dyſpepſia, particularly ſpaſms of the ſtomach, are often ſymptomatic of diſeaſed pancreas. Here are three caſes, two of which certainly ſtand in oppoſition to this ſentiment, and ſeem to prove that the ſtomach does not, at leaſt in all caſes, ſympathize with a diſeaſed ſtate of pancreas, even with ſuch a diſeaſed ſtate as muſt deſtroy its functions.

The above caſes will, I truſt, be ſatisfactory to young practitioners, who may not have ſeen ſuch caſes, as they will be taught by them to be very guarded in their prognoſis, when they meet with ſuch a diarrhœa in jaundice as I have deſcribed. And it gives me pleaſure to ſend you this account, ſince I am perſuaded you muſt recollect being preſent at the inſpection of the bodies of the two women.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

TO thoſe of your readers who have taken an intereſt in the event of the caſe of Saunders, a cancer-patient, then under a courſe of arſenic, the ſequel of my narrative, contained in the xxvth Number of your Work, may not be unacceptable. At that time I had pretty clearly aſcertained that arſenic did poſſeſs the

the property of eaſing the pain in the ulcerated parts; and to enable me to continue this ſalutary influence, ſhould the arſenical ſolution diſagree, I had it in contemplation to combine opium along with it, or digitalis, according to the nature of the complaint which might be excited by its continued exhibition. Soon after my former report, my patient complained of an uneaſineſs at her ſtomach, and of a ſevere head-ach, for which, under a ſuſpicion that they might be occaſioned by the ſolution, I added an equal portion of laudanum, being unwilling to interrupt the uſe of the former, leſt the beneficial impreſſion on the ſyſtem made by it ſhould be loſt. In this form however it diſagreed with her ſo much more than before, that I ſuſpended the uſe of it altogether, and had recourſe to remedies ſuited to the ſeveral indications. Ten days had elapſed before I could again employ the arſenic, during which time the ulceration had conſiderably extended, and latterly ſhe had ſuffered ſeverely from a moſt diſtreſſing burning ſenſation, that ſpread over the whole ulcerated ſurface. The drops were now given in pepper-mint water, to which was afterwards added a little tincture of lavender, as a further corrective. They ſat eaſy on her ſtomach thus combined, and were continued till within a few days of her death, which happened early in the morning of the 26th of May, in conſequence of a diſorder brought on by taking cold, and upwards of ten months from beginning the uſe of the arſenic.

Till the ſuſpenſion of the ſolution above ſtated, the ulcerated parts were free from pain, and the ſenſation of heat was removed in a few days after renewing it. Not ſo, however, with the knots; when active, which ſome of them generally were, the pain in them was extremely acute; one while ſhe thought them more ſo againſt a change in the weather; at another they were worſe without any aſſignable cauſe of aggravation. Nevertheleſs, they had not multiplied very numerouſly, and theſe were chiefly around the ulcerated ſurface, only two or three having extended towards the right breaſt acroſs the foſſa of the boſom, and the reſt had taken the direction of the axilla. Without any diſcoverable breach in the ſolids, ſhe occaſionally loſt a ſmall quantity of blood from the knots, by which ſhe thought the pain conſiderably abated. Profiting by this hint I ventured to apply a leech or two, from time to time, when the pain was unuſually ſevere in any of them, and the bleeding never failed to afford her relief. I had ſome ſcruples relative to the propriety of employing leeches in this caſe, leſt their bites ſhould degenerate into ulcers, which they are apt enough to do, and thereby an extenſion of the diſeaſe might be produced; till it occurred to me, that ſhould ulceration enſue, the diſeaſe would

would then be brought more immediately under the influence of the remedy, and a painful diſorder would be converted into one unattended with pain. But the bites healed without ulcerating.

Where ſo much time is occupied in conducting a caſe through its different ſtages, a variety of incidents muſt neceſſarily occur, not at all important to the main object in view; the recounting of which would only produce fatigue to the reader, and likewiſe increaſe the conſumption of paper. In the preſent inſtance, therefore, I have confined myſelf to a ſummary of the facts; the remainder of which I ſhall now proceed to narrate, together with the appearances on diſſection.

Though the burning ſenſation, ſo characteriſtic of the cancerous ulcer, was removed in a few days by the repetition of the arſenic, the ſpace loſt by the extenſion of the ulceration was never entirely regained. Little diſpoſition to heal appeared for ſeveral weeks after, and as the drops gave no diſturbance, the doſe was augmented to 14 three times a day; which however ſhe continued but for a few days in the increaſed quantity, becauſe, as the ſkinning proceſs was reſumed, it was thought more prudent to deſiſt, and ſhe again took it in the former doſes. I will not venture to determine abſolutely, whether the augmented doſes forwarded the cicatrization at this time, or whether it was the reſult of the preceding ones now acting more powerfully on the ſyſtem; but the healing went on until the ulcer was reduced to nearly its former dimenſions; and, at the time of her death, the ulcer was not larger than the palm of my hand.

There was no occaſion to employ the digitalis.

The ſame external application was continued all along after my laſt report.

In proſecuting the recital of facts, I muſt obſerve that ſhe ſuffered a good deal of pain in the axilla on the left ſide, and in the left arm, in which an enlargement took place; and, before any viſible increaſe elſewhere, a tumefaction appeared over the knuckles of the hand on the ſame ſide, that was ſynchronous with the diſeaſe in the breaſt; ſo that when a more than uſual irritation prevailed in the latter, it was ſo diſtinctly marked by the increaſe of the former, that I could pretty accurately tell the ſtate of the ulceration by looking at the back of the hand. This ſynchronous action in the hand and breaſt continued for ſeveral weeks before the general enlargement of the limb manifeſted itſelf; which it then did by ſwelling from below upwards, particularly in the direction of the abſorbents on the inſide of the fore-arm, the trunks of which were perceptibly enlarged to the touch of myſelf and others. But that

permanent change of ſtructure had taken place, either in the hand or fore-arm, was clearly evinced by the entire ſubſidence of the ſwelling ſoon after death; and the whole muſt conſequently have been cauſed by an irritation originating at the other extremity of the limb.

Although ſhe had been ſo long ill, the body was not at all emaciated, nor had the diſeaſe extended further than is above deſcribed.

On inſpecting the cavities, the only morbid appearance deſerving of notice was a ſlight ſcirrhoſity of the liver, that had not materially impeded the ſecretion of bile. In other reſpects the thoracic and abdominal viſcera were ſound, and the meſenteric glands were free from any enlargement. I was rather ſurpriſed not to find the lungs ſomewhat diſeaſed, becauſe ſhe had been troubled at times with a difficulty of breathing, attended with a mucous expectoration, even before the cancerous breaſt was removed; and had beſides the livid appearance on her lips, and other marks in her countenance of an impeded circulation through the lungs. All theſe ſigns however were fallacious, for the lungs were found of a beautiful grey colour, and not even an adheſion between them and the pleura had taken place. The trachea itſelf was narrower than uſual, though not remarkably ſo.

I have tranſcribed the formula employed in this caſe from the Pharmacopœia Chirurgica, and have ſubjoined it, for the benefit of thoſe who may not have that book in their poſſeſſion.

SOLUTIO ARSENICI.

℞. Arſenici pulveris ſubtiliſſimi, Kali præparati ſing. gr. xvj. Aq. diſtillat. ℥iv.

Theſe are to be digeſted together in a ſand heat, till the arſenic is completely diſſolved.

Noli me tangere.

The quaint title of *Noli me tangere* has been uſed to deſignate a cancerous affection of the face, and is ſufficiently indicative of at leaſt a virulent diſeaſe. I know not whether I am warranted in applying it in the preſent inſtance, becauſe the event has proved favourable. But as the diſorder was a formidable one, and in the next ſtage of it might have been very truly denominated *let me alone*, I ſhall riſk the propriety of applying it, and proceed to detail the caſe.

Mary Lord was paſt the middle age, and mother of a large family. In December laſt ſhe inadvertently extracted a tooth, by entangling it in ſome twiſt ſhe was winding in the courſe

of

of her occupation. A ſhort time after the accident, a tumour formed on the gum over the ſocket, and aſcended rapidly upwards. She felt no pain from it, nor was it even to the laſt at all painful to her. She applied at the Infirmary as an out-patient, a few months from the commencement of it, when it occupied nearly the whole of the left cheek. Beſides the tumour itſelf, there was ſo much contiguous ſwelling as to obſcure the real boundary, to aſcertain which, diſcutient applications were uſed, and with ſucceſs. The tumour then preſented a hard incompreſſible body, occupying the left ſide of the face, from the os malæ to the ſeptum naſi on the ſame ſide, and from its origin on the gum up to the inner canthus of the eye; and was likewiſe ſo firmly adherent to the maxillare ſuperius, and the adjoining bones, as, in the opinion of ſome, to be fixed immoveably. Under theſe circumſtances, a difference of opinion might reaſonably be entertained relative to the propriety and even practicability of removing it by an operation; and it was only after a ſecond conſultation that I was authorized to attempt it. In my own opinion, the tumour was ſeparable from the ſubjacent bones; and as it was free from pain, the ſkin free from diſeaſe, and no vital part was likely to be involved in the operation, I felt fully warranted in proceeding. Objections had been ſtarted on the ſuppoſition that the bones underneath might be carious; but, as in this caſe, the caries muſt have proceeded from preſſure, the removal of the cauſe might be ſuppoſed competent to the removal of the effect, and it would therefore be followed only by ſuperficial exfoliations. Thus fortified, I entered on the extirpation, which was accompliſhed without much difficulty, by making a longitudinal inciſion the whole length of the tumour, and diſſecting it out from the ſubjacent parts. The adheſions to the os malæ and contiguous bones were very ſtrong, but the perioſteum was not denuded from them; and though the whole was completely removed, no veſſel of importance or even requiring a ligature, was wounded. The divided parts united by the firſt intention, and ſhe was diſcharged cured in leſs than three weeks from the time of the operation.

Every conſiderable operation in ſurgery involves a queſtion of morality; and, to juſtify it, there ſhould not only be a probability of benefit to the patient, but alſo a reaſonable expectation that the operation itſelf may not prove mortal. To enter on an operation, which, from the nature of it, muſt be expected to end fatally, is deſignedly to put the patient to death, which, in principle, can never be warrantable; for, certainly, the *anceps remedium* has no reference to phyſical poſſibility. I have always conceived, that profeſſional evidence

refted on the calculation of probabilities, and therefore, whenever the chances were againft the safety of an operation, that it ought to be abandoned. I am well aware that this doctrine might fometimes confign a patient to his fate, when a defperate effort might have faved him; but I am alfo confident, that fuch an occafional lofs would be a leffer evil to fociety than the contrary one; and, in my opinion, it is vindicable upon every principle of reafon, humanity, and found policy; and can never be fubverted by any argument founded on a calculation of diftant advantage.

No ulceration having here taken place, the whole of the difeafe was in all likelihood removed. Like cancer in other parts of the body, had there been abforption from it, the attempt at excifion would only have added another irritation to the one already exifting. Perhaps the too long delay before an attempt to remove cancerous tumours in the face, had deterred practitioners from encountering them, as, in that cafe, all means of relief muft have proved ultimately unfuccefsful. That the tumour in this cafe would foon have turned cancerous, there feems little doubt; when divided it was very hard in every part, and in fome almoft cartilaginous, intermixed with fpots of difcolouration.

I have the honour to be, &c.

Manchefter, 10th June, 1801. W. SIMMONS.

To the Editors of the Medical and Phyfical Journal.

GENTLEMEN,

YOU may, *if you fhall deem it proper*, give the inclofed a place in your Journal.

I have the honour to be, &c.

Montrofe, 25th May, 1801. D. PATERSON.

WHEN we contemplate the Vaccine Inoculation, we are at once loft in admiration and gratitude; and while we are irrefiftibly led to join the wondering, the grateful throng, in paying the juft tribute of applaufe to Dr. Jenner, the immortal difcoverer, we muft, at the fame time, confefs how much we are indebted to the ingenious and benevolent Dr. Pearfon for bringing, in fuch a handfome manner as he did, the bufinefs before

before the public, thereby exciting, all at once, an univerſal, an unparalleled qneſt of inveſtigation, and furniſhing, by innumerable and ſatisfactory experiments, a complete confirmation of the noble diſcovery. Nor will candour allow us to forget, that, as a valuable medium of information on this important ſubject, your no leſs widely circulated than uſeful Journal has held a very diſtinguiſhed rank.

With reſpect to the Vaccine Inoculation, were individual teſtimony neceſſary, mine, according to the experience I have, ſhould not be wanting: But, in truth, after the very honourable teſtimonial that appeared in the 18th Number of your Journal, bearing the names of almoſt all the eminent medical practitioners in London, for the very expreſs purpoſe of confirming all that had previouſly been advanced in favour of the Vaccina, by the Diſcoverer, by Dr. Pearſon, by Dr. Woodville, and by all thoſe gentlemen whoſe names had appeared in your Journal to detailed caſes of the diſeaſe: I ſay, after ſuch an immenſe body of evidence, can the mere name of any individual, whether he reſides near, or is far removed from the metropolis, ſerve any other purpoſe beſides that of ſhewing, if not worſe, the vanity of the writer?

No leſs for the ſake of medicine in general, than for Vaccine Inoculation in particular, I was ſorry, nay, extremely ſorry to obſerve in the 20th Number, page 340, of the Medical and Phyſical Journal, a letter, in all the extravagance of pompoſity, dated Montroſe, 10th September 1800, from Dr. A. Wilſon, giving his authority in favour of the new practice.

Dr. W. in his letter, ſets off by ſaying, "If the information of an individual practitioner, far removed from the metropolis, can add any thing to the very high medical authority with which you have favoured the public on the ſubject of Vaccine Inoculation, my teſtimony is very much at your ſervice; it may in ſome meaſure, ſerve to aſcertain the progreſs of that very uſeful diſcovery all over this iſland." Then the Dr. after pompouſly ſtating, that, "in the month of July laſt" the Small-pox appearing in the neighbourhood of ſome of the firſt families, he propoſed Vaccine Inoculation, ſays, in the concluſion of his letter: "My propoſal was readily agreed to; Vaccine matter was immediately procured; the children were inoculated, and took the infection in the moſt diſtinct and favourable manner; the fears of the parents were completely removed; and from this ſucceſs, and the examples of the firſt families, I am happy to inform you, that Vaccine Inoculation is becoming general in this diſtrict of country."

Now, Gentlemen, with regard to the vaſt information, the great teſtimony of Dr. Wilſon; with reſpect to the children taking

taking the infection in the most distinct and favourable manner; and also, with respect to the fears of the parents being completely removed, the truth is, that when the Dr. wrote that very extraordinary letter, he had not inoculated above eight or nine children (for I would not by any means fall short of the mark) with Vaccine matter; and what serves to render the business the more ridiculous, is, that not only some of those very few cases had, at that time, after repeated attempts, proved unsuccessful, but even none of the successful ones had been tried with variolous matter. And as to Dr. Wilson's success being the means of rendering the Vaccine Inoculation general in this district, I am under the disagreeable necessity of observing, that the Dr. had no more right to claim any merit from the latter than he had cause to boast of the former: For, it must be confessed, that after very long and very great exertion on the part of most of the other medical practitioners, whose attention, totally independent of Dr. Wilson, was very early and very suitably called to this no less novel than interesting business, by the communications of Drs. Jenner and Pearson, the new practice is, even now, by no means general in this place; and no wonder, when our well-meant endeavours, instead of being aided, are thwarted by such information and such testimony as have been quoted. I wish not, however, to offer any further comment on the letter in question.

Thus far, Gentlemen, I have, I presume, been in the way of my duty. Now, pursuing the same path, but varying the object a little, I must beg leave to trouble you with a very concise, though accurate history of my proceedings in the business of Vaccine Inoculation, and also with such remarks, in a plain way, as my practice and that of most of my fellow practitioners has afforded, and as may, I humbly think, have some small tendency to promote the general good.

In the year 1799, thinking well of the Vaccine Inoculation, from the highly respectable testimony of Dr. Jenner and Dr. Pearson, I began to prepare the minds of people here for its reception; and by the following summer, I was happy to find I had succeeded in making a favourable impression on many. But candour obliges me to say, that the greater part of my medical brethren here, were also employed in a similar manner.

In June 1800, I requested, and immediately obtained, a supply of Vaccine matter from Dr. Thomas Anderson of Leith, who, as far as I have heard, stands first on the list of Vaccine Inoculators in this division of the kingdom, and who, with a degree of promptness and liberality which does him no inconsiderable honour, has sent supplies of matter to a great number of medical practitioners in different parts of the country. Dr.

Dr. Anderſon, I underſtand, got his original ſupply of matter from Dr. Jenner.

With the matter I obtained from Dr. Anderſon, I began to practiſe Vaccine Inoculation in this town, making a tender of my ſervices to the lower claſs of people gratis. My firſt attempts, however, were not ſo ſucceſsful as I could have wiſhed. Indeed, from the very high temperature of the air, and from the pertuſſis becoming more and more general, I gave up the buſineſs for a while; but when the weather became cool, and pertuſſis leſs prevalent, I again obtained matter from Doctor Anderſon, by thread, with which I inoculated four children, three of whom went through the diſeaſe. From thoſe caſes I have been going on ſlowly, but conſtantly, ever ſince; and, from that ſource, I have had the ſatisfaction of giving ſupplies of matter to almoſt all the medical practitioners here, as well as to ſome in the neighbourhood, including a lady, who, from motives of humanity, has become a keen inoculator in her vicinity. Dr. Hunter, Dr. Gibſon, Mr. Crabb, Mr. Alexander, practitioners here, and myſelf, for the purpoſe of multiplying our opportunities of making obſervations, and of extending our knowledge, have been in the habit of viſiting one another's patients, and of freely communicating to each other our ſentiments reſpecting the new and important practice. We have inſerted the matter in all the various ways, both as to method and time; and alſo, we have, ſubſequent to the Vaccine, ſubjected a variety of our patients to the Variolous Inoculation. Since we commenced the new practice, to the preſent time, we find, by our liſts, we have inoculated 321 perſons, from the age of five weeks to twenty-one years, excluſive of 44 inoculated by the lady alluded to above, making altogether 365; and, from all that has been obſerved, I have been led to make the following remarks.

1. That the genuine, or, as we may term it, the ſtandard Vaccina, is a mild diſeaſe, and may, not only with ſafety but advantage, be communicated to children at any period during teething, or when their conſtitutions have been weakened, or rendered irritable, by teething, as well as when they labour under many other complaints to which they are ſubject, providing there be no fever, or any ſerious eruption preſent. Many children, puny from teething, one with diarrhœa, and another with a ſlight eruption and cough, from the ſame cauſe, but all without fever, as well as one child labouring under pertuſſis ſine pyrexia, have been obſerved to get very faſt rid of the complaints under which they laboured, and improve much in their general health, after the Vaccina.

2. That, although it has hitherto been obſerved by many that the Vaccina has ſhewn itſelf ſubject to variations, both with

with respect to time and appearance, yet, from all that I have seen, it may, in a very general sense, be considered as regular and uniform in its symptoms and progress.

3 That the Vaccina has come to its acmé sometime between the 8th and 14th day; very generally on the 9th or 10th, sometimes on the 11th, but rarely, I presume, on the 12th, and more rarely on the 13th or 14th day. In 365, inoculated as above, only two 12th day cases, and one 14th day case have occurred here; but no 13th day case has been seen.

4. That hitherto, however, some of the irregularities alluded to in the second remark, as well as others, have not, it is probable, proceeded so much from any thing peculiar in the nature of the genuine Vaccina, or in the human constitution, as from inexperience, in not having known how to render the general phenomena of the disease more regular and uniform.

5. That the genuine or standard Vaccina, by rendering the human constitution unsusceptible of the action of Variolous matter, has proved, in a variety of instances highly satisfactory, a preventative of Small-pox.

6. That often, although the local disease has been highly characteristic, yet the constitutional affection has been very slightly marked; sometimes, indeed, so very slightly, that a whitish tongue, at other times a somewhat accelerated pulse, with a hot skin, for a very short while, has been the only perceptible symptom of indisposition.

7. That, vice versa, as in the case of one of my own patients, which shall be narrated hereafter, though the local affection may be very indistinct, yet the constitutional disease may be completely and strongly marked, even to three or four hours of delirium. This however will, it may be presumed, very rarely occur; for, in 365 cases, it has only happened once; and, besides, in no communication hitherto have I seen it remarked.

8. That, instead of the genuine or standard disease, anomalous, and even spurious or inefficient cases have occurred, most likely, and in a very general sense, from the matter having been taken when the disease has been far advanced, or from its having been kept too long on lancets, glass, or thread, thereby losing its purity, and its specific energy.

9. That other diseases may interfere with the Vaccina, and from their anomalous appearance may, if not ultimately deceive, for some little time puzzle the inexperienced practitioner, as will be exemplified by a case.

10. That although some anomalous cases, I mean some of those running into broad, high, darkish coloured crusts or scales, but at the same time accompanied with something very like the specific inflammation, and attended more or less with febrile symptoms,

ſymptoms, as mentioned by Dr. Pearſon, have, in the end, proved very ſatisfactory; yet, in my humble opinion, all anomalous caſes, not only from their being ſuſceptible of great variety, but as it may, at leaſt for a time, be exceedingly difficult, nay impoſſible, to diſtinguiſh the efficient from the inefficient ones, ought to be conſidered as ſuſpicious.

11. That all caſes ought to be looked upon as doubtful when the inoculated part does not inflame on the third, fourth, fifth, or ſome ſubſequent day, and become a bluiſh white, or whitiſh veſicle, containing a limpid fluid, moderately increaſing in ſize, dimpling in the middle, with ſurrounding inflammation, which, in a very general ſenſe, increaſes after the ſeventh or eighth day, followed very commonly on the ninth or tenth day by febrile ſymptoms more or leſs perceptible, and leaving very frequently as it goes off, a haló-like circle, or ſometimes even two ſuch circles, round the veſicle, which by this time is degenerating, from its centre to its circumference, into a darkiſh coloured and moſt commonly dry cruſt, very ſimilar to the delineation of Mr. Walker, in the caſe of his own child. (Vide Med. and Phys. Journal, Vol. I.)

12. That, the more certainly to enſure ſucceſs in Vaccine Inoculation, I mean to produce the genuine Vaccina, and that very generally regular and uniform in its phenomena, the fluid to inoculate with ought to be taken directly from one perſon to another, on the 6th, 7th, or 8th day, or, what perhaps would be a better rule, while it is limpid, any time after it is formed in the veſicle, and before the inflammation is much increaſed; becauſe when the inflammation round the veſicle has increaſed much (and ſometimes it ſpreads very rapidly) there is either no fluid in the veſicle, or what it contains, inſtead of being limpid as it ought to be, is of a purulent-like appearance, and may fail in producing the deſired effect—the genuine or ſtandard diſeaſe.

13. That, with regard to the inſertion of the matter, inciſion or puncture will, if properly made, anſwer the purpoſe equally well. But one-eighth part of an inch, or a very little more, is a ſufficient length for the inciſion; and neither it nor the puncture ought to be deeper than the cuticle.

14. That if, contrary to deſign, the wound ſhould happen to be made deeper than the cuticle, and ſome drops of blood iſſue from it, the Vaccine matter ought not to be inſerted until the bleeding be ſtopped, otherwiſe the matter will run a great riſk of being waſhed away, or of forming, with the blood, a dry inert cruſt, and, conſequently, the operation of failing in its wiſhed for reſult.

15. That if dry Vaccine matter, preſerved on glaſs, is to be uſed,

uſed, the ſame method as has already been mentioned may be purſued; but the matter ought firſt to be rendered fluid by means of a very ſmall quantity of cold water.

16. That if a thread, impregnated with Vaccine matter, and dry, is to be uſed, a ſmall puncture, as already recommended, with a very narrow ſpear-pointed lancet, ought to be made, and a little bit of the impregnated thread, previouſly moiſtened as above, may be introduced into it by means of the ſharp end of a ſmall probe, and there allowed to remain.

17. That gently ſcratching acroſs the arm with the point of a lancet, armed with freſh wet Vaccine matter, taken at a proper time, until the cuticle be juſt divided, has, of all other methods, anſwered beſt. For inſtance, I take hold firmly of the patient's arm at the elbow, with my left hand, and with a lancet, armed with proper Vaccine matter, between the thumb and fore-finger of my right hand, and with its point downwards, uſing as a fulcrum my right little finger on the patient's arm, I make a ſcratch between one-eighth and one-fourth of an inch long, acroſs the arm, by gentle and repeated ſtrokes from ſide to ſide, until there is the very ſlighteſt appearance of blood, and then wipe off on the wound any matter that remains on the ſides of the lancet. During the whole of this operation the matter is deſcending from the lancet into the little wound that is making. It is worthy of remark that, lately, this method has not once failed in above a hundred caſes.

18. That the Vaccina has not been obſerved to ſuperinduce any particular diſeaſe.—In ſome caſes a ſmall ſlight eruption, unattended with any the leaſt diſtreſſing ſymptom, and of ſhort duration, has been ſeen a ſhort time after to follow it. In the caſe of one child, indeed, five weeks old, a very extenſive and troubleſome eruption ſoon ſucceeded the diſeaſe; but whether it had the Vaccina for its cauſe, would, perhaps, be a very hard matter to determine, as the child had a ſlight eruption ſome little time before the inoculation took place; and alſo, as another child, ten weeks old, puny, with a cough and ſmall eruption, went through the diſeaſe in a very diſtinct and mild manner, and evidently with great advantage. On the circumſtance of the firſt mentioned child, however, the caution in the firſt remark is founded.

19. That no topical applications have been found in the ſmalleſt degree neceſſary in caſes of the genuine Vaccina, the local affection having always healed very ſoon, and in the kindeſt manner; but not ſo in ſpurious caſes of the diſeaſe, where improper matter has been uſed!

20. That no inſtance of the Vaccina occurring twice in the ſame

ſame perſon has been obſerved; nor has the Vaccina ever been produced after the Small-pox.

21. That in ſome patients, flat topped puſtules with inflamed baſes, on parts of the body diſtant from the inoculated part, have been obſerved; they appeared on the third or fourth day after the febrile ſymptoms, which were very ſmart, began to ſubſide. I have inoculated with matter from ſome of thoſe puſtules, but without effect.

22. That I have run Vaccine matter, taken on the ſeventh or eighth day, but generally on the former, twenty times thro' the human conſtitution, without being able, on attentively comparing the firſt and laſt caſes of the ſeries, to note any perceptible difference in its effects.

23. That, in 365 perſons inoculated, not one death, nor, I believe I may venture to ſay, any untoward circumſtance has happened in conſequence of the Vaccine Inoculation.

I have taken the liberty of being the more particular with reſpect to the phenomena of the Vaccina, the anomalous and inefficient caſes, the time of taking the matter, and the manner of inſerting it; becauſe I have juſt heard, that, in different places, many children who had previouſly, as was ſuppoſed, gone through the Vaccine diſeaſe, have ſince been ſeized with the natural Small-pox; and further, becauſe I am very much afraid, that, throughout this kingdom, as well as on the continent, &c. more inefficient caſes than we are aware of, have already occurred. Inexperience, no doubt, has been, and will be, the cauſe of many errors; but inattention, which is leſs excuſable, has, I am apt to think, been productive of conſiderable miſchief. I have lately heard of ſome gentlemen, who from the pureſt motives inoculate paupers gratis, but who never ſee their patients after inſerting the matter. The impropriety of ſuch a plan is ſo evident, that while we applaud the intentions of ſuch gentlemen, we muſt certainly condemn their practice.

I ſhall now bring the preſent communication to a concluſion, by offering you two extraordinary caſes that have happened in my own practice, which will ſerve not only to illuſtrate ſome of the obſervations I have made, but along with others of my remarks not leſs important, to ſhow the great neceſſity of particular attention in the buſineſs of Vaccine Inoculation.

Case I. (Alluded to in the 9th remark.) On the 2d of July, 1800, I inoculated a healthy boy, thirteen months old, with Vaccine matter. On the third day from the inoculation the inciſion was inflamed, as I thought ſpecifically, and continued ſo all that and the fourth day; but on the fifth day the in-

 flammation

flammation was almoſt gone, and by the eighth day it, as well as the inciſion, was obliterated. On the tenth day, however, the child unexpectedly laboured under ſymptoms of fever, and on the morning of the eleventh day a very ſingular eruption made its appearance, conſiſting of about ſixty puſtules, ſcattered over all the ſurface, but chiefly occupying the trunk and thighs, of a purpliſh hue, with inflamed baſes, from the ſize of a ſmall pin-head to that of a pea, and containing a limpid fluid. As the eruption advanced, the febrile ſymptoms diſappeared. The puſtules continued increaſing in number until the thirteenth day from the inoculation, amounting altogether to about ninety, dimpling in their centres as they maturated, and at laſt forming brown cruſts, which deſquamated in a few days.

This caſe, not from its ſeverity, nor from the leaſt apprehenſion of ultimate danger, but from its ſingularity in a noſological ſenſe, puzzled me. The eruption was uncommon and curious. That it was the Vaccina I was by no means ſatisfied. I invited four of my medical brethren, well informed men, to look at it, all of whom confeſſed they never had ſeen ſuch an eruption. I had an opportunity of ſhewing it alſo to a very worthy experienced medical friend, who had ſeen a great number of Dr. Woodville's patients under the Vaccina, in London, and even he declined giving a decided opinion reſpecting this anomalous caſe.

The diſeaſe, the ſymptoms of which I have here detailed, was evidently of the claſs Pyrexiæ, and, I preſume, a variety of ſome one of the ſlighter Exanthemata, perhaps of Varicella; as, according to after information, but by no means authentic, a few caſes of that malady were obſerved in this place a ſhort time before. At all events, it was ſomething remarkable that that diſorder ſhould have interfered ſo very cloſely with the inoculation. Pray, could that have prevented the latter from producing its ultimate effect? or, could this have operated in altering the ſhape of the former? At any rate, in conſequence of not being pleaſed with the reſult of this attempt, I ſubjected the child again to Vaccine Inoculation with effect.

Case II. (Alluded to in the 7th remark.) On the 17th of October, 1800, a robuſt healthy boy, ſix years old, was inoculated with Vaccine matter. 21ſt, The inoculated part ſlightly inflamed. 22d. Much the ſame as yeſterday. 23d. Inflammation ſomewhat increaſed. 24th. Much the ſame as yeſterday. 25th. Inflammation conſiderably diminiſhed. 27th. Inflammation almoſt entirely gone. About noon, this day, he began to complain of head-ach, thirſt, &c. with a ſlight degree of delirium towards evening; was in bed from dinner-

time

time. 28th. A very ſlight degree of redneſs in the inoculated part; pulſe 108; tongue whitiſh; but without any particular complaint. 29th. Inoculated part perfectly well; no general complaint. 31ſt. Three puſtules with flat tops and inflamed baſes, containing a limpid fluid, and, in a word, bearing all the characteriſtic marks of Vaccine puſtules, were obſerved on his upper lip and noſe. This patient, ſome time afterwards, was again inoculated with Vaccine matter, when the inoculated part inflamed on the ſecond day, and ran faſt into a ſcab, diſcharging a purulent-like matter. The ſame boy, nearly ſix months after the firſt inoculation, was carefully inoculated with Variolous matter, which had no other effect than that of producing a ſlight degree of inflammation in the inciſed part.

To the Editors of the Medical and Phyſical Journal.

GENTLEMEN,

IN your laſt Journal I obſerved Mr. Philips's Statement of irregularity in the Vaccine Diſeaſe. It is a circumſtance which has frequently occurred to me, and muſt likewiſe to every experienced practitioner in the new inoculation; with reſpect to the inoculation with Variola after the ſubject has paſſed the Vaccine, no doubt, I believe, now remains of the unſuſceptibility of the conſtitution receiving infection; but that the local diſeaſe, occaſioned by Variolous inoculation, after having paſſed the Vaccine, is capable of producing conſtitutional diſeaſe in another ſubject, is a matter not ſo frequently canvaſſed, but which is equally certain. In ſupport of which poſition I offer you the following facts; if you conceive they may be the means of convincing one incredulous friend, they are at your ſervice for publication. I am, &c.

St. Alban's Street, May 9, 1801. W. HUMBY.

THE beginning of October laſt, I inoculated the infant daughter (three weeks old) of my brother, with Vaccine virus; ſhe paſſed the diſeaſe in the regular way, without indiſpoſition. About two months ſince I heard the mother was averſe to taking the child to a friend's houſe where the Small-pox was; I immediately deſired I might inoculate it with Variola, ſo as to reduce the child's ſafety to a poſitive certainty. I inoculated her on Friday, May the 8th, from a ſubject who had Small-pox from inoculation. The next day, Saturday, the arm

arm was inflamed. Sunday, a limpid veſication had riſen. *Monday*, the inflammation began to ſubſide; and on the ninth day, when the child ſhould have had conſtitutional diſeaſe, the eſchar had fallen off, and left a mark as is the caſe in inoculated Small-pox. To convince the mother ſtill farther, on the *Monday* I inoculated two children, (brother and ſiſter) the boy with fluid from her child's arm, the girl with Variola; the girl had the diſtinct Small-pox, though rather full; the boy's arm, on the fourth day after inoculation, had no appearance of infection; but on the fifth day a trifling inflammation was viſible, which went on increaſing till the twelfth, when he ſickened, and had the Small-pox of the confluent kind, which he paſſed ſafely through.

Obſervations on the Inoculated Cow-Pock,

By T. M. WINTERBOTTOM, M. D.
Phyſician of the Colony of Sierra Leone.

THE advantages which the Cow-pock poſſeſſes have of late very much excited the attention of the Public, more eſpecially as its inoculation is ſafe and practicable at every period of life, and almoſt in every ſtate of health. In infancy, during the time of teething, when the irritability of the ſyſtem is ſo much increaſed as to render the inoculated Small-pox dangerous and often fatal; likewiſe at an adult age, during the time of pregnancy, when the Small-pox is generally fatal to the infant, and often dangerous to the mother, the Cow-pock Inoculation may ſafely be employed. But when we reflect that the Cow-pock offers, at the ſame time, the means of annihilating that dreadful ſcourge the Small-pox, it evidently becomes our duty to ſpread the former as extenſively as poſſible. There are, however, ſome circumſtances reſpecting the inoculation for the Vaccine diſeaſe, which do not appear perfectly ſatisfactory. In a great number of the hiſtories of this inoculation, ſome degree of febrile indiſpoſition is noticed, though the ſymptoms were ſeldom ſevere. But as theſe febrile paroxyſms are ſaid to have occurred, in ſome caſes, as early as the third day after inoculation, and in others to have been protracted, without any evident cauſe, to the eleventh or twelfth day, or even later, a doubt ariſes whether we ſhould conſider a degree of fever as eſſential to the diſeaſe, or merely as an accidental occurrence.

Infants

Infants are so liable to febrile commotions of the system, which arise from causes seldom very obvious, that in many of the instances above recorded, the exacerbations may have fallen in with a certain period of the Vaccine inoculation. The change intended to be produced in the system by this disease, certainly implies that some constitutional affection should be produced; but whether this may take place, in the generality of cases, obscurely, and without any evident disturbance of the functions, does not appear perfectly clear. This circumstance is of some importance, as we know the Cow-pock is capable of exciting a local disease in those who have undergone the Small-pox, and of producing a fluid which is able to propagate the genuine Vaccine disease in such as have neither been variolated nor vaccinated. It therefore becomes desirable to distinguish such cases where only a local, or where a constitutional disease has been produced. In all the exanthemata, the eruption, which may be regarded as the criterion of a constitutional change having taken place, pretty regularly occurs on or before the fourth day; and in the inoculated Small-pox, where the analogy is more evident, the pustules, if there be an eruption, usually appear on the tenth. In these instances, fever may be regarded as constituting the essence of the disease. When failures have occurred in the inoculated Small-pox, they have generally arisen from considering the severity of the local affection as a sufficient protection against the recurrence of the disease, without attending to the febrile state of the system.

It has been supposed that a certain number of persons remain through life unsusceptible of Small-pox infection; and the proportion has been computed to be about one in sixty: It appears to me, however, more probable, that in many of these supposed instances of want of susceptibility, the patients have undergone the disease during infancy, and have suffered the essential change operated by variolous fever, though no eruption appeared. A child about eight months old, which had always been very healthy, was inoculated in both arms with recent variolous matter, with which six other children were inoculated and experienced a favorable disease. Upon this child, however, the infectious matter produced no visible effect, and the incised parts healed immediately. Three months afterwards the child was inoculated a second time with fluid Variolous matter, introduced in as large a quantity as possible, but with as little effect as in the first attempt. Not being perfectly satisfied with the safety of the child, the inoculation was repeated at the end of six months from the last attempt, with matter of Cow-pock. Two punctures were made in each arm, and fluid Vaccine virus introduced into each. On the second day the punctures

punctures appeared red; the erythema increased slightly until the fifth or sixth day, when it appeared to have attained its acmé. A stigma or small elevated point now appeared in the centre of each puncture, and the redness gradually vanished. This might be given as an instance of unsusceptibility of the disease; but to me it appears more probable, that the child had gone through the natural Small-pox at a more early period. The variolous fever had probably been so slight as not to be noticed, or perhaps had been referred to cold, bowel complaints, &c. In such instances, the eruption of a few solitary pustules in a very young infant, which do not maturate, are very apt to be referred by nurses, like every other eruption, to the red gum. I have known itch pustules mistaken for the red gum. In inoculated Small-pox, fever is frequently the only visible effect produced in the system; and in many instances of scarlatina, no eruption appears. A similar instance of measles occurred to my observation, where it seems probable that the disease had run its course without any eruption. An infant, during the month, became affected with a slight degree of fever, heaviness, and watering of the eyes, accompanied with a peculiar kind of cough, which continued severe for a few days, and then abated. About three or four months afterwards the measles were epidemic in the town, and three children in this family were severely affected with the disease; in one, the symptoms ran so high as to threaten danger, but the infant, though exposed to the contagion, did not take the complaint. In the instances of inoculated Cow-pock which fell under my care, upwards of fifty in number, including subjects from four months to seventeen years of age, not a single instance of indisposition occurred which could be attributed to the inoculation. Those patients who were old enough to describe their sensations, complained merely of soreness and stiffness in the axillæ.

The few solitary instances which the opponents of the new practice have adduced as proofs of the inefficiency of the Vaccine disease to resist the contagion of Small-pox, have been, perhaps with propriety, referred to a *spurious Cow-pock* introduced by mistake instead of the genuine disease. If the spurious Cow-pock, as it is termed, be a specific disease capable of producing a certain train of appearances in regular order, and in an indefinite number of subsequent inoculations, there may be some difficulty in detecting it when introduced into the human system; but, on the contrary, if the effect produced by *the spurious matter* be no more than a degree of erythema, such as would follow the insertion of any other acrid matter, and such as sometimes arises in an unsuccessful Variolous Inoculation, it

is

is improper to uſe the term *ſpurious Cow-pock*, as there is evidently no affinity between it and genuine Cow-pock. It has been ſaid, that the matter of genuine Cow-pock becomes decompoſed by long keeping, and generates a ſpurious diſeaſe. To this it may be objected, that Vaccine Virus has been ſent to very diſtant parts of the globe, to America and to the Eaſt Indies, where it has communicated the genuine diſeaſe; and a ſurgeon of eminence aſſured me, that he had ſucceeded perfectly well with Cow-pock matter which had been kept three months on the point of a common lancet. A doubt has been ſtarted by ſome who favour the new practice, leſt in proceſs of time the Vaccine matter loſe its ſpecific virus by being ſucceſſively propagated in the human ſubject. This opinion, which experience alone can determine, is certainly deſerving of attention. If the blue tinge which ſurrounds the puſtule on the teat of the cow be the characteriſtic ſign of the genuine diſeaſe in that animal, and if it be obſerved that this blue tinge is of a deeper hue in the human ſubject, in proportion as it proceeds more immediately from the cow, it will give ſome degree of probability to the above opinion, and alſo ſhew the propriety of having occaſional recourſe to the parent ſtock. In all the caſes which fell under my care, the blue tinge ſurrounding the puſtule was never ſo intenſe as it is repreſented in ſome of the plates of the Cow-pock, but appeared to be rather of a dirty white; this circumſtance excited a degree of apprehenſion leſt the matter had not been genuine. The puſtule aſſumed, in every inſtance, the ſame flat appearance, and was not much unlike a confluent Small-pock about the eighth or ninth day of the eruption, depreſſed in the centre, elevated at the edges, which had a degree of tranſparency, and contained a pellucid fluid. The Cow-pock puſtule having been called by ſome writers a veſicle, occaſioned me to ſuppoſe that its contents would be evacuated inſtantly by puncture, in conſequence of which miſtake the matter was loſt on the firſt trial. But, on a ſecond attempt, it was found that by waiting a few ſeconds after the puncture was made, a drop like a pearl appeared to diſtil from the orifice, and the ſame takes place if ſeveral punctures be made. After the 12th or 13th day, the puſtule began to change from the centre into a brown ſcab, ſomewhat larger than a ſplit pea, or more nearly reſembling a ſplit horſe bean in form and colour. Theſe cruſts, or ſcabs, commonly continued two or three weeks. In no inſtance did the inoculated part ulcerate, neither did the inflammation run to ſuch a height as to require any attention, except in one child, where a ſaturnine lotion quickly ſtopped its progreſs.

Some variety occurred in the extent of erythema round the inoculated

inoculated part; in a few inſtances there was only a faint bluſh ſcarcely exceeding the circumference of the puſtule, while in others, inoculated with matter from the ſame ſource, the areola was of a fiery red, and equalled in ſize a ſhilling or half crown. There was alſo ſome difference in the progreſs of the erythema; in ſome the inoculated part was more advanced on the ſixth day than in others on the ninth, in which laſt inſtances the puſtules appeared very pale, and had only a trifling areola. In inoculating for the Small-pox, I have been accuſtomed to introduce as much matter as could conveniently be inſerted on the point of a ſpear-ſhaped lancet, for which purpoſe an inciſion was made on each arm with a freſh lancet. This is contrary to the opinion of ſome eminent practitioners, who adviſe a very ſmall portion of matter, diluted with water, to be inſerted; but having had reaſon to be ſatisfied with the former method, I have followed it in inoculating for the Cow-pox, and I have always uſed two armed lancets for the ſame patient, making one or two punctures, an inch apart, in each arm. The mode of introducing the poiſon was by inſerting the point of a fine narrow lancet horizontally under the cuticle, until a portion of it was viſible through the cuticle; this was repeated a few times, until the whole of the virus appeared to be rubbed off. Notwithſtanding the very rapid ſucceſs which has attended the introduction of the Cow-pock, and notwithſtanding it has triumphed over every oppoſition, ſome caution ought to be uſed in the choice of ſubjects for inoculation, leſt an indiſcriminate uſe of it in very young infants bring the practice into occaſional diſrepute, not from any danger attending the new diſeaſe itſelf, but from complaints incidental to infants, and which might be unjuſtly attributed to the Vaccine diſeaſe. The inoculated Small-pox has no doubt ſuffered from ſuch cauſes, as the following inſtance may ſhew. A woman applied to have a fine healthy child, about ſix months old, inoculated from a neighbour's child in the natural Small-pox. The mother of the child, however, in the natural Small-pox, from a prejudice rooted among the vulgar, would not allow any matter to be taken, leſt her child ſhould be hurt by the loſs of it. The other child, of courſe, was not inoculated; but on the third day after it ought to have been inoculated, the child was ſeized with convulſions, which continued four or five days, and carried it off. As there was no apparent cauſe for the convulſions, they would have been charged upon the inoculation had it been performed.

In endeavouring to ſpread the Cow-pock inoculation, medical men ought to be cautious how they depreciate the Variolous inoculation, by aſſerting that it frequently excites ſcrophula.

phula. The humoral pathology ſtill maintains its ground among the vulgar, who do not comprehend how one diſeaſe may bring another into action, unleſs it be by introducing the ſeeds of it into the ſyſtem.

A gentleman who had experienced the advantages of the Variolous inoculation in ſeveral of his children, obſerved, on reading ſome accounts recommending the Cow-pock, that there was an appearance of duplicity among medical men, as, until lately, theſe diſadvantages of inoculation were not *publicly* noticed.

South Shields, June 7, 1801.

To the Editors of the Medical and Phyſical Journal.

GENTLEMEN,

IN an ingenious work, lately printed in this town, entitled, *An Inquiry into the Nature and Cauſe of that Swelling, in one or both of the lower Extremities, which ſometimes happens to Lying-in Women*, Part II. the reſpectable and experienced Author, CHARLES WHITE, Eſq. has inſiſted on a particular affection as conſtituting the pathognomonic ſymptom of the diſeaſe named *Phlegmatia Dolens* in my Eſſay, to which I cannot aſſent; has objected to ſeveral caſes, related in my Eſſay, in which all the ſymptoms, that I deem eſſential or characteriſtic, were preſent; has given a theory of the diſeaſe, which I conceive to be purely hypothetical; and has urged various objections, which I think may eaſily be invalidated, to the theory advanced by me. I am therefore induced to lay before the public ſome remarks upon Mr. White's publication, and will thank you to give them a place in your valuable Journal for next month. I have the honour to be, &c.

Mancheſter, June 12, 1801. JOHN HULL.

THE OBSERVATIONS which I have to offer upon Mr. White's *Inquiry*, relate principally to the diagnoſis of the diſeaſe, which he has choſen to name *Phlegmatia alba dolens puerperarum*; to the theory of this diſeaſe, given by Mr. White; and to the arguments urged by him againſt the theory which I have endeavoured to eſtabliſh.

I. *Observations on the Diagnosis of Phlegmatia Dolens.*

"The PATHAGNOMONIC SYMPTOM of this diſeaſe," ſays Mr. White, "is a ſwelling of the whole labium pudendi on the ſame ſide *only*, on which there is a firm, gloſſy, warm, tenſe, elaſtic, painful, ſudden ſwelling, of a pale white colour, which attacks the hypogaſtric region, the loins, nates, groin, thigh, leg and foot of a lying-in woman; and I muſt beg leave to impreſs this upon my readers, that when one limb only is affected, the ſwelling is confined ſo exactly to the labium pudendi of that ſide, that if a line were drawn from the navel to the anus, it would be found never to go beyond that line in the ſmalleſt degree." *Inquiry*, &c. Part II. p. 7.

Admitting, for the preſent, that the labium pudendi is invariably affected in the manner ſtated above, when the diſeaſe affects only one of the lower extremities, this affection is, I apprehend, very improperly ſtyled the pathognomonic ſymptom of Phlegmatia *dolens*. It includes the whole concourſe or aſſemblage of ſymptoms, by which we judge of the preſence of the complaint in that individual part. The ſame ſymptoms, occurring in the nates, inguen, or hypogaſtrium, conſtitute the diſeaſe in theſe reſpective parts; taking place in the thigh or leg, they indicate the preſence of the diſeaſe in theſe parts alſo. And no ſolid reaſon can be aſſigned, why pain, heat, tenderneſs, and ſwelling of the labium pudendi, unaccompanied by redneſs, ſhould be taken as the pathognomonic ſymptom by the Author of the *Inquiry*, &c. in preference to the affection of the nates, thigh, inguen, or hypogaſtrium, ſince each of theſe parts is at leaſt as frequently affected as the labium pudendi, in the complaint under conſideration. The ſwelling of the labium pudendi, in my opinion, is to be conſidered only as *marking the extent*, not as *serving to distinguish the disease*: Whence I contend that Phlegmatia *dolens* may be as certainly diſtinguiſhed, without making a ſingle inquiry, relative to the ſtate of the pudendum of the patient, as by the moſt curious and ſcrupulous examination of this part of the body. This, however, would not be the caſe, if the affection of the labium were the pathognomonic ſymptom, or an eſſential part of the diſeaſe. Acute pain of the thorax in Peripneumonia *Pleuritis*; of the abdomen in Enteritis *phlegmonodea*, are truly pathognomonic ſymptoms, and no practitioner can determine upon the preſence of theſe diſeaſes, without knowing the pain to be preſent in them.

That the labium pudendi of the correſponding ſide, and of this ſide only, is affected with ſwelling, pain, &c. &c. in every caſe of this diſeaſe, I cannot, however, grant. This affection did

did not occur in the case of Massey, which I shall have occasion to mention more particularly hereafter, on either side, although both her lower extremities were affected in succession, as well as the inguinal and hypogastric regions. It occurred on both sides in the case of Mrs. ********, to be mentioned hereafter, although only the left lower limb was affected with the complaint under discussion. Mr. Tomlinson informs me, that he has known the swelling of the labium pudendi wanting in this disease; and Mr. Wood has also made me acquainted with a recent case of this complaint, which he considers as a well marked one, in which the pain and swelling began in the leg, and the labium pudendi remained unaffected. Of this I must beg leave to subjoin a short account: Mrs. D***, of Salford, was delivered on November 17, 1800. On the 24th, she had pain in her back, and pain and enlargement in one of her breasts. The day following she experienced some pain in her head, was thirsty, had a frequent pulse, and other febrile symptoms. On December 1st, she had rigors succeeded by heat, pain in the head, thirst, frequent pulse, and was also attacked with a pain in the calf of her right leg. This pain, which was very violent, extended at first upwards to the knee, thigh, groin, and hypogastrium, and was followed by a swelling of these parts, it also extended down the leg to the foot. The whole limb became much swelled, tense, and tender, was not at all discoloured, and so firm and elastic as not to pit on pressure. On the fourth day of the complaint a lymphatic gland in the groin became enlarged to about the size of a walnut; but there was no perceptible enlargement or inflammation of any absorbent vessel or vessels. The other leg was not affected with the complaint. If this be not a genuine case of Phlegmatia *dolens*, I should wish to know what other disease it can be referred to?

If Mr. White really considers the affection of the corresponding labium pudendi as an indispensable part, a *sine qua non*, of the disease, how has it happened that *he* could recognize the disease in the descriptions, histories, and characters of it, given by the different practical and nosological writers who preceded him? Puzos, to whom we are indebted for the first clear and accurate account of Ph. *dolens*, Levret, Sauvages, Sagar, &c. are totally silent as to any affection of this part.

That Mr. White himself must consider the complaint as distinguishable, independently of what he has been pleased to style the *pathognomonic symptom*, appears evident from his own Preface, page 8, where he says, "The complaint had not indeed wholly escaped his countryman Sydenham, for though he ranked it in a different class of diseases, viz. Hysterical, yet under

der that head *he has described* it with other diseases of child-bed women." In proof of this assertion he gives the following extract from Sydenham's *Diss. Epistol. ad G. Cole*: "In quo genere is, *qui tibias distendit*, tumor præ reliquis conspicuus est. Cum enim in Hydropicorum tumoribus, duo hæc semper observari possint, ut tumor scilicet sub vesperam se majorem exhibeat, tum etiam ut, pastæ instar madentis, vestigium digiti fortius impressi, formamque, referat; *jam in hoc altero tumor matutino tempore protuberantior est, nec digito cedit prementis, aut vestigium ullum manet.* Plerumque etiam tibiarum alterutram tantum inflat: de cætero sive magnitudinem spectes, sive etiam superficiem, Hydropicorum tumores ita ad amussim æmulatur, ut ægræ se haud facile ab ea, quæ insedit sententia, dimoveri patiantur." Yet in this extract, Sydenham does not mention any swelling of the labium pudendi, or groin, or hypogastrium, or even the thigh; he notices an *elastic* swelling of the leg, but he does not even say that this was attended with pain, soreness, or heat; symptoms which other writers, as well as myself, deem essential to, or characteristic of, Ph. *dolens*. Hence, if the affection, described by Sydenham, be referrable to the genus Phlegmatia, it would appear to belong to the species that I have named Ph. *diuturna*, rather than to Ph. *dolens*. But even this can hardly be allowed. We have the high authorities of three nosologists, Sauvages, Cullen, and Sagar, for referring the disease mentioned by Sydenham to the genus Pneumatosis, each of whom have named it Pneumatosis *hysterica*. See *Sauv. Nos. Meth. T.* II. *p.* 273, (where it is described in Sydenham's own words); *Sagar Syst. Morb. Sympt. p.* 150; *Cullen Syn. Nos. Meth. Vol.* II. *p.* 150—Had Mr. White attended carefully to the four or five lines immediately preceding the above quotation, he would have perceived that Sydenham was treating of a very different complaint: "Atque ut hic morbus," says this celebrated writer, speaking of *Hysterical Affections*, "omnes fermè partes *internas* infestat, ita etiam nonnumquam et *exteriores* carnemque musculosam occupat, *maxillas* scilicet, *humeros*, *manus*, *crura*, *tibias*, nunc dolorem adducens, nunc tumorem." *Opera Universa*. P. 391, 8vo. Ludg. Bat. 1741.

As far as I have been able to discover, Mr. White is the first writer who has taken notice of the swelling, &c. of the pudendum in Phlegmatia *dolens*. Since his publication appeared, it has been noticed by Dr. Evans, Callisen, and me, (*Essay*, p. 134); but neither Callisen nor I have mentioned it as an essential circumstance.

Mr. White coincides with me in opinion, that this complaint is admirably described in the *Princ. Syst. Chir. Hod.* of Callisen; let us therefore attend to what is there said upon the subject.

ſubject. He begins with giving the following definition or character of the diſeaſe: " Œdema puerperarum, aliis lacteum, eſt tumor elaſticus, albeſcens, renitens, calidus, dolens, foveam, impreſſi digiti haud retinens, puerperis haud infrequenter, gravidis rariſſime infeſtus." Part II. § 34. Now, a *definition* or *character* of a diſeaſe conſiſts of the eſſential ſymptoms, and is thereby contra-diſtinguiſhed from a *description* or *general history*, which, beſides theſe, comprehends other ſymptoms that are not eſſential, or all that occur in the courſe of this diſeaſe. By omitting to mention the labium pudendi in this paragraph, Calliſen has ſhewn that he does not regard the ſwelling of this part as an eſſential or neceſſary circumſtance. The eſſential or characteriſtic ſymptoms, according to this excellent writer, are an elaſtic, white, firm, hot, painful tumour, that does not retain the impreſſion of a finger, and which occurs not uncommonly in lying-in women, but very rarely in pregnant women. Whoever will take the trouble to read the generic character of Phlegmatia and the ſpecific character of Phlegmatia *dolens*, as given in my Eſſay, (page 354) will find that I have not differed materially from Calliſen. So far indeed is this author from conſidering the affection of the labium pudendi as a neceſſary part of the diſeaſe, that he informs us the complaint, though very rarely, *affects the upper extremities*, " Rariſſime extremitates ſuperiores petit." § 35.

In the deſcription of the diſeaſe, as affecting one of the lower extremities, Calliſen takes notice of its affecting the vulva; but inſtead of agreeing with Mr. White, that " the ſwelling is confined ſo exactly to the labium pudendi of that ſide, that if a line were drawn from the navel to the anus, it would be found never to go beyond that line in the ſmalleſt degree," he ſays it affects both the labia: " Surgit plerumque 12mo. vel 14to. poſt partum die tenſio et dolor inguinis, ſequitur tumor, qui ſenſim ad *labia* vulvæ et latus femoris internum, deinde per totum femur extenditur." § 36. And afterwards, in laying down the marks by which this complaint may be diſtinguiſhed from *Oedema hydropicum*, he does not once allude to the affection of the vulva.

Mr. White appears to me to have taken the ſame individual caſe both as a caſe and as not a caſe of Phlegmatia *dolens*. The caſe to which I am alluding, is one related by Dr. Evans, in the 10th vol. of the Firſt Decade of Duncan's Med. Comm. p. 302—304, and copied by Mr. White in his *Inquiry*, P. II. p. 18—20. Since there is an error in one of the dates, as given by Mr. W. which rendered the hiſtory of the diſeaſe unintelligible to me, I ſhall ſubjoin a ſhort account of the caſe with Dr. Evans's remarks upon it.

" A lady

" A lady of a delicate conſtitution, being about 3 months advanced in her pregnancy, was (on the 19th of June, 1783) ſuddenly alarmed by an uterine hæmorrhage." On the next day, as the diſcharge continued in ſmall quantity with ſlight pain in the loins, ten ounces of blood were taken from the arm. A draught compoſed of the Dec. cort. per. rubr. with ac. vitr. was given every four hours, and an anodyne at bed time. This treatment, with the addition of a bolus of nitre and camphor, which was taken with each draught, was continued for ten days. On the 30th, ſhe complained of a chillneſs over the whole body. On the 1ſt of July, in the morning, " ſhe had a pain in the left groin, *a swelling of the labium pudendi of the same side*, which extended to the back, accompanied with a dyſuria, a pain and ſwelling down the inſide of the thigh and the back part of the leg, with ſuch a degree of ſtiffneſs as to prevent the extenſion of the limb without great uneaſineſs." " On the *ninth* of July, the ſwelling of the whole limb was increaſed and had an œdematous appearance, but was harder to the touch than in a common anaſarca." " On the 27th, in the afternoon, the ſwellings ſuddenly diſappeared," and the next morning ſhe miſcarried. " Every ſymptom of diſeaſe now diſappeared, and nothing remained but a ſmall degree of ſwelling towards night, which gradually diminiſhed as ſhe gained ſtrength." " It is evident," Doctor Evans ſays, " from the caſe here related, that the diſeaſe is not peculiar to women in the ſtate deſcribed by Mr. White, therefore the cauſe of this complaint is ſtill obſcure, and is likely to remain ſo, till diſſection affords an opportunity of inveſtigation." We have here the pathognomonic ſymptom ſo much inſiſted upon by Mr. W. and yet it ſeems that he does not admit this to be a genuine caſe; for he ſays, " Though I am decidedly of opinion, that the *Phlegmatia alba dolens puerperarum* can never be occaſioned by preſſure, yet I can conceive, *that a temporary complaint ſimilar to it*, may be brought on in the early months of pregnancy, (viz. about the third or fourth) by the impregnated uterus preſſing the lymphatics againſt one ſide of the pelvis." *Inquiry, &c.* P. II. p. 18. And he then relates the above caſe as an inſtance. He afterwards clearly admits, that this was a caſe of the diſeaſe, and oppoſes it to the theory which I maintain; ſince he ſays, " The caſe related by Dr. Evans is a complete refutation of the doctrine of inflammation of any kind being the cauſe of this complaint, *as the lady was of a delicate conſtitution, and had not one inflammatory ſymptom*, but had an uterine hæmorrhage, and had ten ounces of blood taken from her arm." *Ibid.* p. 21. I admit this caſe as a true and genuine caſe of Ph. *dolens* occurring during pregnancy,

but,

but I cannot accede to the inference from it made by Mr. White. Delicacy of conſtitution does not neceſſarily exempt a lady from inflammatory complaints; and it is not expreſſly ſtated, whether there were any inflammatory ſymptoms or not: but if the uterine hæmorrhage were not believed to be of the active kind, I aſk, Why was this delicate lady bled from the arm to the amount of ten ounces? I ſhould infer from this treatment, that there was an inflammatory diatheſis. And it appears highly probable to me, that after the bark had been taken for ſome time, the inflammatory diatheſis re-appeared, or was increaſed; that then the pyrexia ſupervened, and in conſequence of it, a ſtrong determination of the circulating fluids to the limb affected, and effuſion of coagulable lymph took place; whence pain, ſwelling, and the other ſymptoms of Phlegmatia *dolens* were produced. This caſe I cannot help conſidering as favourable to the theory I defend, and as completely ſubverſive of the theories which ſuppoſe the diſeaſe to be occaſioned by a diviſion or preſſure of the lymphatics paſſing along the ſide of the pelvis. How could the lymphatics be divided, or compreſſed here by the preſſure of the uterus againſt the ſide of the pelvis, when the uterus was much too ſmall to fill the tubular part of the pelvis? But of this more will be ſaid hereafter.

Before I proceed to demonſtrate, that the objections made by Mr. White to ſeveral of my own caſes of Phlegmatia *dolens*, are not well founded, I muſt beg leave to ſtate, that in the character and deſcription of this malady, given in my Eſſay, (p. 354 and 356) the *intumescentia albida*, or *pallida*, is made an eſſential ſymptom; and that in the general hiſtory I have expreſſly ſtated the tumefied extremity to be "*of the natural colour, or even whiter, &c.*" See Eſſay, p. 136. If therefore, in a ſingle caſe, I have omitted to ſtate this circumſtance particularly, I ſhould hope that the reader would conſider it as underſtood. Prepoſterous, indeed, would it be in me, to relate, as genuine hiſtories of a diſeaſe, caſes, in which the ſymptoms that I deem eſſential, did not exiſt. In the general hiſtory of this diſeaſe, given in the former part of the *Inquiry, &c.* by Mr. White, he ſays, "the limb *is not attended with inflammation*;" (p. 8) and afterwards (p. 9) the ſwelling "is very ſmooth, ſhining, and pale." This is the whole he has ſaid with reſpect to the colour of the affected limb in that publication; and in twelve out of the fourteen caſes there related, he makes not the leaſt mention of the colour of the limb. In the ninth caſe he ſays, "the ſwelling of the extremity increaſed for ſome days, till it was very tenſe, ſhining, and *marbled, but without inflammation*," (p. 24); and in the tenth he ſays, "that

"that the parts affected became *pale.*" A perſon, therefore, who infers with Mr. White the non-exiſtence of a ſymptom in a caſe, becauſe it is not expreſſly ſtated, might, on this ground, reject twelve out of the fourteen caſes related by this writer, which, I conceive, would be very unfair, as he has mentioned the paleneſs of the limb in his general hiſtory, prefixed to the particular ones. In the tenth and eleventh caſes, Mr. White has not expreſſly ſtated the affection of the labium pudendi to have been preſent; but it would not be fair in any perſon who may conſider this as an eſſential part of the diſeaſe, to reject them on this account, for he has not ſtated that this ſwelling was wanting. Nine of the women who were the ſubjects of theſe fourteen caſes, are expreſſly ſtated to have been delivered and attended by other perſons; and of the remaining five, I ſhould not ſuppoſe that all were attended by Mr. White; it might, therefore, be objected to the majority of theſe caſes, that he could not have had an opportunity of aſcertaining whether the ſwelling of the labium pudendi extended or not beyond a line drawn from the navel to the anus. But how unfair it would be, to raiſe objections to, and reject Mr. White's caſes, on ſuch grounds as theſe, when it is evident, that he is acquainted with the ſymptoms of the diſeaſe, and it is to be ſuppoſed, that he would not give as particular hiſtories of the diſeaſe, caſes in which theſe ſymptoms were wanting.

I have not objected to any of Mr. White's caſes upon any ſuch grounds as have juſt been ſtated, or indeed upon any ground, in my Eſſay on Phlegmatia *dolens*, nor do I mean to object to any of them in this paper: but I ſhall now ſhew, that Mr. White, in raiſing objections to four caſes which were minutely attended to by me, has not only concluded certain ſymptoms to be wanting, becauſe I have omitted to ſtate them expreſſly, but has alſo ſtated an *eſſential* ſymptom to have been wanting in more than one caſe, which is particularly expreſſed; and this he has done without further inquiry, from reading the caſes, as related in my Eſſay. He has alſo ſelected extracts from my caſes, in order to prove them not genuine, in which is given what I do not deem eſſential to the diſeaſe, and he has omitted to give thoſe paſſages, in which the ſymptoms are particularly mentioned, which I do conceive to be eſſential to, and characteriſtic of the complaint under diſcuſſion. I ſhall now enter upon the proof of what I have juſt advanced.

Speaking of my fourteenth caſe, (the caſe of Sarah Knight) Mr. White ſays, "it wanted two principal ſymptoms, the ſwelling of the *labium pudendi*, and *the white leg.*" *Inquiry*, P. II.

P. II. p. 47. In the relation of this caſe, I have omitted to mention, whether the labium pudendi was affected or not; but I have this day (June 9) learnt from the patient, that the labium pudendi of the correſponding ſide only, was ſeverely pained and tumefied. I have alſo omitted to ſtate the colour of the limb, but have obſerved, that the pain which began in her right hip, extended to her groin, thigh, and leg, and was "afterwards ſucceeded by a tenſe, elaſtic, lucid, hot, tender, painful ſwelling of the whole limb." *Eſſay*, p. 175. And Mr. Boutflower, and Mr. C. Boutflower, as well as myſelf, can teſtify as to the whiteneſs of the limb in this woman.

Mrs. Hulſe, the ſubject of my thirteenth caſe, was attended by Mr. Wood and me. Mr. White, ſpeaking of this caſe, ſays, "There are ſome circumſtances wanting in this caſe to enable me to decide poſitively, whether this was the *Phlegmatia alba dolens*, ſuch as the ſwelling of the correſponding labium pudendi, and the white leg." *Inquiry*, &c. P. II. p. 45. Neither Mr. Wood nor I attended to the ſtate of the pudendum in this caſe, we are conſequently unable to ſay, either that the ſwelling of the labium pudendi was preſent, or wanting in this patient; and as I cannot learn where ſhe reſides at this time, I cannot make the inquiry: But ſurely Mr. White is not juſtified in ſaying, that this affection was wanting. With reſpect to the whiteneſs of the limb, both Mr. Wood and I know that this ſymptom was preſent, and the following quotation from my account of the caſe of Mrs. Hulſe will, I truſt, convince the reader, that this circumſtance has been ſufficiently pointed out. "She was ſeized with a ſevere pain in the groin, and ſuperior part of the right thigh, which deſcended to the leg and foot, and a tenſe, *colourleſs*, elaſtic ſwelling of the whole limb ſupervened." *Eſſay*, p. 170.

To the caſe of Mrs. ********, which is the 12th in my eſſay, Mr. White alſo objects, and ſays, "the ſkin of the limb had not the milky whiteneſs, but was inflamed, nor was the ſwelling confined to the labium pudendi of that ſide, which was affected, but extended to both labia pudendi." Mr. W. then gives what he is pleaſed to call my own ſtatement of this caſe, and concludes in the following words: "This complaint therefore, decidedly, was not the phlegmatia dolens, but a return of the anaſarca which had preceded delivery." *Inquiry*, P. II. p. 45. The caſe of this lady is given at great length in my publication, but as this may not be read by many perſons into whoſe hands Mr. White's Inquiry will come, I ſhall ſtate the following circumſtances. Her limbs had been very anaſarcous during pregnancy, but the ſwelling of theſe had entirely diſappeared on the 6th of July, fifteen days after her delivery.

 At

At ſeven in the evening of this day "I ſaw her again. She had experienced ſome degree of chillineſs ſoon after I viſited her in the morning, which was ſucceeded by heat, and about three P. M. ſhe was attacked with violent pain in the left leg. The pain began upon the fore part of the leg, a little below the middle, and extended upwards to the calf. The leg alſo felt hotter than natural, and ſtiff when moved. It was ſoon after examined carefully by the nurſe, who obſerved a bluſh of ſmall extent on the fore part of the leg, *which went off after rubbing it a little.* In half an hour the pain and ſtiffneſs affected the whole limb, and were ſoon followed by a tenſe, elaſtic, hot intumeſcence, without any diſcolouration of the ſkin. When I examined the limb, four hours after the attack, *the swelling appeared uniform, extending from the foot to the groin, hip, and lower part of the abdomen. It was hotter than natural, and not at all discoloured, tense, tender, and so firm, that it scarcely retained any degree of impression from the finger*, &c." Eſſay, p. 154, 155. Upon theſe appearances I form my opinion of this affection being a genuine caſe of Phlegmatia *dolens.* Let us now ſee, how much of the above deſcription of it is quoted by Mr. White. He only gives theſe words: "July 6th, ſhe was attacked with violent pain in the left leg; a bluſh of ſmall extent on the fore part of the leg." *Inquiry*, p. 43. I aſk if this can be called my own ſtatement with any degree of propriety? He then adds, "July 27th, both of the labia pudendi were become more enlarged, more tenſe and tender, &c." and afterwards dwells upon the ſymptoms, which mark the œdematoſe ſtate of the limb, ſucceeding to Phlegmatia *dolens.* I flatter myſelf, enough has been adduced to ſhew, that this affection of the left leg and thigh was truly a caſe of the diſeaſe to which I have referred it. It forms a ſtriking contraſt to the œdematoſe affection, which appeared in the right leg, after the patient was able to ſit up, and which may be ſtyled anaſarca *puerperarum.*

Reſpecting the caſe of Ann Maſſey, Mr. White ſays, "After delivery there might be thoracic inflammation, but I think it not improbable that it might be hydrothorax. My reaſon for being of this opinion is, that ſhe had anaſarca gravidarum." *Inquiry*, P. II. p. 148. Speaking of the affection of the limbs, which ſucceeded, he adds, "that it was not the phlegmatia alba dolens, I am perfectly ſatisfied. It not only wanted the pathognomonic ſymptom, *the swelling of the corresponding labium pudendi*, and alſo the *tumor albeſcens*, but it had ſymptoms which are not compatible with this diſorder." *Inquiry*, &c. p. 49. Whoever will read the whole account of this caſe, as given in my Eſſay (p. 178, 186), with attention, will, I think, differ totally

totally in opinion from Mr. White. An œdematose affection occurring in the latter months of pregnancy does not prevent the woman from having an internal inflammation during her lying-in. And the thoracic affection stands characterized by inflammatory symptoms, and not by the symptoms of hydrothorax. This patient had coldness and shivering, succeeded by heat, head-ach, and other febrile symptoms. She had pain in the left side of the chest, difficult respiration, and cough. The crassamentum of her blood had a thick buffy coat upon it, and presented a cupped or concave surface. The symptoms were so urgent, that Mr. Stewart, under whose care she was, bled her four times from the arm, applied leeches twice to her side, and blistered her twice in the course of ten days. I shall now give some extracts from this case, which shew the affection of the lower limbs to have been properly considered as a true case of Phlegmatia *dolens*. On the 22d of July, "a pain suddenly invaded the whole of the left lower extremity; the limb was rubbed, and soon after began to swell; the febrile symptoms were aggravated. July 23, *the limb was very painful and much swelled; the swelling was tense, tender, and free from discolouration; it scarcely retained the impression of the finger for any sensible time in the thigh.*" Essay, p. 180. On the 10th of August, when the swelling of the left lower limb was gradually decreasing, a pain, which she had felt for some time in the back part of the calf of her right leg, "*ascended to her right thigh, groin, and hypogastrium on the same side, reaching nearly as high as the navel. The inside of the thigh was more particularly painful. The pain afterwards extended to the leg, and the whole limb became swelled, tender, tense, and more or less elastic in different points, but was not discoloured.*" Essay, p. 181. On the 17th of August I saw this woman with Mr. Stewart. "*At that time the right thigh was more swelled in proportion than the leg. It was also more tense and very tender, when touched, especially along the inside. It did not retain the impression of a finger.*" Essay, p. 182. When I attended this patient, I made no inquiry as to the presence or absence of swelling of the pudendum; but I have learnt within these few days, that neither of the labia pudendi were swelled, though the inguinal and hypogastric regions were considerably tumefied. I do not acknowledge the incompatibility of any symptom, or symptoms, with this malady, that are not contradictory of the symptoms which I deem essential to and characteristic of the complaint. It certainly is not an incompatible circumstance, that the cutaneous veins were found enlarged and blue at the top of the thigh of this woman seven days after the attack of the complaint.

Mr.

Mr. White afterwards ſays, " there is but one caſe more in Dr. Hull's Eſſay, which I ſhall have occaſion to notice, and this will be neceſſary, *because it is the only one*, beſides Profeſſor Zinn's, *where the disease has been supposed to prove fatal.* This caſe of Mrs. C——, of Mancheſter, was communicated to Dr. Hull by Mr. Tomlinſon." *Inquiry*, P. II. p. 50. In the 26th page of my Eſſay, I have given an extract from the works of Puzos, in which he declares, that he has had the misfortune to loſe more than one patient of this diſeaſe. " J'ai eu le malheur de perdre plus d'une malade, &c." The very firſt caſe of Phlegmatia *dolens*, related in my publication, had a fatal termination. The ſubject of it was the daughter-in-law of M. Cléments, the maſter of Puzos. And the 5th caſe alſo was a fatal one. The complaint occurred to a lady in the fourth month of her pregnancy in one limb. It then paſſed to the other lower limb. She was delivered at the term of ſeven and a half months. The complaints continued after her delivery, and ſhe died on the ninth day. Mr. White, after giving a long quotation from the caſe of Mrs. C——, proceeds to ſay: " It does not appear that there was any ſwelling of the correſponding labium pudendi, the leg not white, not that milky whiteneſs deſcribed by Levret, not the *tumour albescens* of Calliſen. The ſwelling did not begin in the groin or thigh, as deſcribed by the beſt authors, but in the leg. I muſt therefore reject this caſe, as not being the phlegmatia alba dolens puerperarum, but *must attribute her death to a return of the anasarca*, which had preceded her delivery, eſpecially ſince after her death the leg burſt and diſcharged a liquid ſlightly tinged with blood; this being a circumſtance which frequently happens in anaſarca, but *never* in phlegmatia alba dolens puerperarum." *Inquiry*, P. II. p. 52. Mr. Tomlinſon informs me, that he never inquired into the ſtate of the labium pudendi in this lady: But it will appear from the two following extracts from this caſe, as related by Mr. T. that the *tumour albescens* was not wanting: " Her leg was now very much ſwelled, and *exhibited the same marks that are usually observed in the painful intumescence of the lower limbs, incident to lying-in women.*" " The whole limb, on examination, was tenſe, conſiderably ſwelled, and very tender to the touch, *but not discoloured.*" Eſſay, p. 193. We have the authority of Puzos for ſaying, that this diſeaſe has proved fatal; and when this happens, we may, I think, expect the limb in ſome inſtances to burſt after death, and to diſcharge a *small quantity* of liquid, *without reducing the limb materially*, as in the caſe of Mrs. C——. On the other hand, where an anaſarcous limb burſts after death, we may expect the diſcharge of liquid to

be

be conſiderable enough to reduce the ſwelling of the limb materially.

Mr. White ſays, "I am well ſatisfied, that there is not one caſe of the genuine diſeaſe, in its ſimple, uncomplicated ſtate, ſufficiently authenticated, that ever proved fatal; not one that was ever attended with any external inflammation, abſceſs, gangrene, or burſting of the ſkin in the legs or thighs as in anaſarca; that though the *pain* ſometimes begins in the ham or the calf of the leg, yet the *swelling* never begins ſo low." *Inquiry*, p. 8. He adds, "that it never attacks the ſame ſide more than once." It is painful to me to differ in opinion upon many of theſe and ſome other points, relative to Phlegmatia *dolens*, with a profeſſional gentleman who has had ſo much experience, and juſtly acquired ſo much celebrity as Mr. White: But I think I have eſtabliſhed the contrary by incontrovertible facts in my Eſſay.

I ſhall conclude this part of my paper, with obſerving, that Mr. White appears to me to have taken a too confined view of the diſeaſe; to have deſcribed a particular variety inſtead of a ſpecies; and to have improperly excluded all thoſe caſes, wherein the diſeaſe has begun, proceeded, or terminated differently from the caſes which have fallen under his own obſervation, and thoſe wherein the affection of the labium pudendi and the whiteneſs of the leg have not been particularized. Had ſome of his own caſes occurred to a leſs curious obſerver, or to a practitioner, who did not conceive the ſwelling of the labium pudendi to be an eſſential part of the complaint, it is very probable that in theſe caſes the tumour of this part would not have been ſtated, and that theſe very caſes might have been ranked by Mr. White amongſt the exceptionable ones.

(To be concluded in our next Number.)

VACCINE INOCULATION.

CONSCIOUS, as we are, of the benefits mankind are likely to derive from Vaccine Inoculation, and ſincerely wiſhing to obviate every means which can impede its progreſs; and conceiving too that no other impediment of importance can poſſibly ariſe than from the excitement of the ſpurious puſtule by the choice of improper virus, we here lay before our readers ſome intereſting communications from Dr. Waterhouſe and others who have taken up the new practice in America. Theſe we copy from an American News-paper, but we have alſo ſeen

a letter

a letter wherein the learned Profeffor candidly mentions, that the fpurious cafes were excited by virus taken from a puftule advanced too far to afford the Vaccine virus in its perfect ftate. And this, we conceive, is precifely the idea Dr. Jenner has laboured to diffufe, and which, indeed, we tranfcribe from a note of his in our poffeffion, "That the limpid fiuid fhould be taken for the purpofe of inoculation, as foon as the vefìcle appears fufficiently prominent for that purpofe, which is commonly on the fifth or fixth day, and that it retains its active and perfect properties until the efflorefcence is formed, which is commonly on the tenth day, and that after this its effects become uncertain, and confequently fhould then be no LONGER trufted to."

KINE-POX.

HAVING heard that feveral perfons, who had been inoculated for the *Kine-Pox* at Marblehead, have fince taken the fmall-pox, I wrote to the inoculator in that town, requefting an accurate hiftory of the bufinefs, and having waited a due time for an anfwer without receiving any, I can no longer defer giving you a few important facts refpecting it. The public will then be better prepared to judge of the truth of my former affertion, namely, that "*such persons as have undergone the local disease and specific fever of the Kine-pox, are thereby rendered ever after unsusceptible of the Small-pox.*" For I have faid, in page 16 of my Pamphlet, that "the great queftion which the profeffional public were anxious to have refolved, was, *whether a person who had been* FAIRLY *infected with the genuine* Cow, *or* Kine-pox, *was thereby secured against the* Small-pox?" The facts adduced in that Treatife fatisfied the public. Let us now fee if any have occurred fince, fufficiently ftrong and clear to change their opinion.

I inoculated two, and but two inhabitants of Marblehead. One was a perfon whofe name I have forgotten, who faid he would return to me in fix days, that I might fee if his inoculation had *taken*; but he returned no more. As I never faw him under the diforder, I cannot be anfwerable for him. The other was the fon of a practitioner, a boy of about eight or nine years of age. His father brought him to my houfe in Cambridge. I put the thread in his arm, and gave his father a fmall portion of the fame, but never faw nor heard any more of the boy afterwards, and of courfe I never knew whether he ever had the genuine *local affection* and *specific fever*, which conftitute that peculiar diftemper, which I have faid and ftill believe fecures the human fyftem from the Small-pox. Yet from

from this boy's arm was taken, as I am informed, all the matter with which all the others in Marblehead were inoculated. If the matter therefore which I uſed did not give the genuine diſeaſe in the *first* inſtance, which happens very frequently, then all the caſes that followed it muſt of courſe be *spurious*, and abſolutely incapable of ſecuring the ſyſtem from an attack of the Small-pox. As this child's father had never ſeen the diſeaſe, it is no reflection on his ſkill to ſay that he was incapable of judging whether his ſon, or his other patients, abſolutely had the genuine Kine-pox.—The wide avenue which theſe facts open to uncertainty muſt be apparent to every diſcerning individual. If the credit of the Kine-pox has been tried by the evidence from Marblehead only, theſe facts will have no ſmall weight in pleading *an arrest of judgment.*

But Marblehead has not afforded the only inſtance of a perſon having the Small after having been inoculated for the Kine-pox, and it is agreeable to the candor we profeſs to bring forward all the facts that have come to our knowledge on this important ſubject. Yeſterday I received a letter from Hudſon, on the North-River. The writer ſays, that in October laſt he obtained ſome Kine-pox matter from a gentleman who ſaid he had it of me, and with it he inoculated upwards of thirty people; of which number not above ten had the ſymptomatic fever; of theſe ten five only had ſymptoms with ſome ſeverity; eight or ten more were ſo ſlightly affected as to render it *doubtful* whether they had the proper ſymptoms. The remainder were not in the *least* affected, except at the place where the infection was inſerted. He then adds, that willing to ſatiſfy his own mind, and that of the inhabitants of the place, he determined to inoculate one of his patients with the Small-pox, and choſe for that purpoſe one of the *doubtful class*, which patient broke out with the Small-pox the eleventh day after inoculation. This phyſician, who thinks like a man of ſenſe, and writes like a gentleman, adds to the foregoing narrative the following reflections. "I am ſenſible that I have committed an error. It would have been more prudent to have waited until further obſervation and information had inſtructed me more in the nature of this diſeaſe. It, however," ſays he, "excites my aſtoniſhment, that the ſame matter ſhould in one ſubject produce the ſpecific fever, and in another a painful tumor only, which maturates and diſcharges freely without entering the ſyſtem. I beg leave, therefore, to enquire what are the certain criteria by which I may determine, in thoſe caſes where the ſymptoms are doubtful or obſcure, whether the ſpecific change in the ſyſtem has taken place from the operation of the Kine-pox infection as will in future prevent the Small-pox?" At the ſame

ſame time I received a letter from Tolland, in Connecticut, the writer equally unknown to me with that from Hudſon. The ſubſtance of it is, that a perſon came to his Small-pox Hoſpital to be inoculated, after having been inoculated for the Kine-pox, and that he went regularly through the Small-pox. The account which the man gave of his Kine-pox inoculation, and its conſequence, did not accord with the true diſeaſe. He ſaid he was inoculated by one Chandler, who told him that he had obtained his matter from me, and had been under my inſtructions at Cambridge. This is not the only perſon who has impoſed on the common country people by ſimilar falſehoods.

The above inſtances, in addition to what has occurred at Marblehead, ought to excite the ſerious attention of all concerned in the Kine-pox inoculation. I expect to hear ſimilar accounts from other quarters; for it is a fact, and a deplorable one, that a great many have been, and ſtill are, inoculating with *ſpurious* matter, without knowing it, which matter produces a *ſpurious* diſeaſe, merely imitative of the *genuine* Kine-pox.

Apprehenſive of ſome ſuch accidents, I publiſhed at a very early period of this buſineſs, that "there were ſome circumſtances, which, if not critically attended to, might bring the inoculation of this recently imported diſtemper into a temporary diſrepute. That Dr. Jenner, aware of ſuch an accident, had pointed out the fallacious ſources, whence a diſeaſe imitative of the Kine-pox may ariſe. The ſources of this ſpurious Kine-pox, as enumerated in my Treatiſe, page 26, are, Firſt, That ariſing from puſtules on the nipples or udder of the cow, which puſtules contain no ſpecific virus. Secondly, From matter (although originally poſſeſſing the ſpecific virus) which has ſuffered a decompoſition, either from putrefaction, or from any other cauſe leſs obvious to the ſenſes. Thirdly, From matter taken from an ulcer in an *advanced stage*, which ulcer aroſe from a true Kine-pox. In the ſame page I continue to ſay, from Dr. Jenner, that when the inoculated part has degenerated into an ulcer, the matter, though it may poſſeſs the power of inflaming the patient's arm, is nevertheleſs void of that ſpecific virus requiſite to produce the genuine diſeaſe, and, of courſe, INCAPABLE OF SECURING THE HUMAN SYSTEM AGAINST THE SMALL-POX.

And as if this was not ſufficient warning, I quoted this paſſage from Dr. Jenner. "I have often been foiled in my endeavours to communicate the Cow-pox by inoculation. An inflammation will ſometimes ſucceed the ſcratch or puncture, and in a few days diſappears without producing any further effect.

effect. Sometimes it will even produce an ichorous fluid, and yet the ſyſtem will not be affected."

And leſt the reader's attention ſhould not after all this be rouſed, I added, "Inſtances of this kind are recorded to have happened in England, where the perſons were afterwards inoculated for the Small-pox, and TOOK THE DISORDER."

To all this, I now add an extract of a letter from Dr. Jenner to Dr. Pearſon, publiſhed in the 1ſt vol. of the Medical and Phyſical Journal, article the very firſt; where, after ſuggeſting a caution reſpecting the *state* of the matter employed in inoculating, which he thinks loſes its ſpecific effect after it has loſt its *limpid* quality, adds, "much precaution is therefore neceſſary in the progreſs of the enquiry; and *this is my grand fear*, that the diſcovery may fall into diſcredit *from a want of that attention, in conducting the experiments, which the subject requires.* For example, a perſon may conceive he has the Cow-pox matter on his lancet, when in fact, there may be only a little putrid pus; with this he inoculates, and excites a diſeaſe of ſome kind, *but not such a one as will prevent the Small-pox.* Thus a deluſive inference would be drawn, at once hurtful to the cauſe, and particularly injurious to me. However, truth muſt appear at laſt."

If any practitioner engaged in the Kine-pox inoculation will not read what is written expreſſly for information on this subject, he muſt be anſwerable for the conſequences of his negligence. There are caſes, (eſpecially in the medical department) where ignorance is converted into a crime.

Many have, to the idea of a diſtemper, milder, ſhorter, and ſafer than the inoculated Small-pox, annexed the idea of leſs trouble in the communication and treatment of it. I heſitate not, on the contrary, to affirm, that putting the circumſtances attending its contagion out of the queſtion, there is no practitioner who has experienced both, but what will prefer inoculating for the Small-pox to that of the Kine-pox; the latter calling for much more attention, and exacting a much nicer diſcernment than the former. Hence I will venture to predict, that the inoculation for the Kine-pox will not be a favourite branch of buſineſs with phyſicians of extenſive practice in the larger ſea-port towns.

Upon a deliberate review of the whole buſineſs, I have not ſeen, read, or heard, any thing that has any way diminiſhed my intire confidence in the ſalutiferious conſequences of the Kine-pox inoculation. I ſtill continue firm in the opinion, that *those who have gone* FAIRLY *through this disorder can never have the Small-pox.*

Of

Of my ſix children, the two eldeſt had the Small-pox by inoculation in 1792; the other four were inoculated for the Kine-pox the paſt ſummer; and I deliberately declare, that I ſhould feel as little reluctance in putting theſe four into a bed with a perſon under the confluent Small-pox, as I ſhould the two eldeſt. More cannot be ſaid to teſtify *my* confidence in the practice. Should any one aſk, if I would riſk ſuch a trial with every one I inoculated? I anſwer, *No*. For about two or three weeks in the month of November the matter ſeemed to have undergone a *deterioration* in my hands. I inoculated ſeveral perſons four or five times over before I could communicate the diſeaſe. To three or four I never could communicate it. And ſome ſtill remain in that ſhade of ambiguity, that I am ſtill uncertain whether they have paſſed *fairly* through the diſeaſe or not. Next Spring I hope to put theſe caſes beyond all doubt. As to thoſe whom I have inoculated, and never ſeen afterwards, I do not conſider myſelf as anſwerable for their ſucceſs; for many came with an intention that I ſhould never ſee them again or even know their names.

I have entertained an opinion, which ſome may think, perhaps, not ſtrictly philoſophical, namely, that *the Kine-pox matter becomes milder as it recedes from the cow*, and that in proceſs of time it gets worn out, and, like the ſeed of ſome vegetables, needs renewal. My own obſervations have inclined me to this opinion. When it is known that all the Vaccine matter hitherto uſed in America (ſome received at Ipſwich excepted) came from *less than two inches* of infected thread which I received from Bath in England laſt June, this idea will not appear altogether abſurd. It is certain, that when I firſt began to inoculate, viz. in July laſt, a very ſmall portion of the thread never failed to communicate the diſeaſe on the very firſt trial, when the patients followed their ordinary buſineſs and took no medicine. Whereas, at this time, I uſe ſix times the quantity of infected thread, keep the patients within doors, give them ſmall doſes of calomel and antimony, aſſiſted by pediluvim at bed-time. It is not improbable that further experience may modify this opinion and practice.

Under an impreſſion of the *deterioration* of the Vaccine matter, I have written to Drs. Jenner, Pearſon, Woodville, Thornton, Haygarth, Lettſom, and the Directors of the Vaccine Inſtitution, and to ſeveral practitioners who have had the moſt concern in this inoculation, and have ſuggeſted an arrangement by which I may expect a ſupply of matter, as *direct from the cow* as poſſible, every four weeks throughout the coming year, or until we get the Kine-pox naturalized in this country as much as it is in England. Previouſly to which, I

ſhall

ſhall venture another communication, entitled "*Practical Observations on the local Appearance, Symptoms, and Mode of Treating the Kine-pox,*" which I hope to make through the medium of the Centinel and of the Mercury.

Cambridge, Dec. 20, 1800. B. WATERHOUSE.

From the PRESIDENT of the UNITED STATES to Dr. WATERHOUSE.

SIR, *Washington, Dec.* 25, 1800.

I received laſt night, and have read with great ſatisfaction, your Pamphlet on the ſubject of the Kine-pox, and pray you to accept my thanks for the communication of it. I had before attended to your publications on the ſubject in the Newspapers, and took much intereſt in the reſult of the experiments you were making. Every friend of humanity muſt look with pleaſure on this diſcovery, by which one evil more is withdrawn from the condition of man; and muſt contemplate the poſſibility, that future improvements and diſcoveries may ſtill more and more leſſen the catalogue of evils. In this line of proceeding you deſerve well of your country; and I pray you, Sir, accept my portion of the tribute due to you, and aſſurances of the high conſideration and reſpect with which I am,

SIR,

Your moſt obedient humble ſervant,

(COPY.) THO. JEFFERSON.

To Dr. WATERHOUSE, *Cambridge.*

Prof. HUFELAND, *on the medical Use of Oil.*

THE action of groſs oils ſeems, in a great meaſure, to proceed chemically, by their affecting organiſation, which, however, will be more ſatisfactorily explained when our knowledge of organic chemiſtry becomes more improved. Oily remedies are found to poſſeſs not only topical effect in mitigating pains, ſpaſms, and other anomalous actions of the nervous ſyſtem, but this effect frequently extends itſelf ſympathetically, by removing, when internally given, ſimilar affections in remote parts. In what manner they properly act, I ſhall leave undetermined, and only acquaint the reader with ſome new caſes, where oils may be ſucceſsfully employed. They have hitherto proved of avail in the following affections.

1ſt.

1. In vehement topical irritations of any part of the inteſtinal canal, theſe remedies are extremely ſerviceable, particularly if thoſe affections are attended with pain, as in cardialgies, colics, diarrhœas, dyſenteries, obſtructio alvi ſpaſtica, and even in the ileus. There is no remedy ſo certain to alleviate almoſt momentarily the moſt vehement colic, as ſome table-ſpoons full of the oil of ſweet almonds, or an emulſion of it, or half an ounce of ſpermaceti diſſolved in warm water. They are at the ſame time very harmleſs, whereas opiates, given in ſimilar inſtances, always require precaution. In febrile infantile diſeaſes they are alſo of great uſe, particularly when, by the frequent uſe of the irritating ſaline remedies, or purgations, a violent fever with a painful and tenſe belly is brought on from a too great irritation of the inteſtinal canal; an oily emulſion will remove theſe ſymptoms.

2d In all irritations and ſpaſms, general as well as topical, that are occaſioned by worms, oils are the beſt remedies, by diminiſhing the irritation, and preventing inflammation, and by promoting the expulſion of the worms; they are therefore to be much recommended in worm fevers, and likewiſe for ſupporting the effect of anthelmintics, particularly in the cure of the tænia.

They are conſidered as very good remedies in irritations, ſpaſms, and inflammations of the urinary paſſages, as they afford inſtant and certain relief in the moſt vehement pains ariſing from a calculus, in the moſt painful ſpaſms of the bladder, ſtranguries, iſchuries, &c. where either the internal uſe of oils is ſufficient, or at the ſame time the external application in frictions, clyſters, &c.

4th. In the calculus veſicæ felleæ, and the ſymptoms that hence ariſe, as colics, &c. the uſe of oils deſerves much commendation.

5th. They are alſo to be praiſed in ſpaſtic affections of the lungs and breaſt, particularly in the ſpaſmodic aſthma, in the tuſſis ſpaſtica, attended with a ſuppreſſed expectoration and ſome degree of inflammation, both which ſymptoms are generally removed by the uſe of oils. It ought, however, to be obſerved, that if it is too long and unneceſſarily continued, it may occaſion ſuch a relaxation in the lungs that from the immoderate expectoration a phthiſis pituitoſa enſues. The hæmoptyſis ſpaſtica, that ariſes from too great irritability of the lungs, without inflammation, was ſometimes cured by the oil of ſweet almonds, when other remedies proved unſucceſsful.

6th. Oils and fats are the chief remedies in all kinds of poiſoning, particularly that from cauſtic ſubſtances, either externally applied, or given internally. Experience ſhows, that the virulence of arſenical poiſon is remarkably abated, and all danger

ger removed, by the internal ufe of oil and milk. Oils prove alfo very great antidotes in the chronic confequences of the poifonous effect of arfenic and lead. The action of animal poifons is likewife diminifhed by the ufe of oil, and the bite of a viper rendered innoxious by rubbing oil on the affected part, which is alfo the beft lenient in the fting of a bee and other infects.

7th. The effects of contagious poifons is even fuppreffed by oils, according to the late obfervations that have been made in the plague, which, in its firft ftage, is cured by repeated inunctions of the whole body with oil. It is probable, that by frictions the fkin is excited to a greater action, and the fpaftic conftriction of the pori cutanei removed by the relaxing quality of the oil, by which means the expulfion of the contagion is promoted: for it has been obferved, that this remedy was only of avail when a great perfpiration enfued.

8th. In all topical pains, fpafms, and conftrictions of external parts, from whatever caufe they may arife, the frictions with oils are the beft and quickeft remedies.

9th. Oil rubbed on the belly has been found very ferviceable in the hydrops afcites, for which purpofe the oil of olives has been particularly employed; but whether this has a proper quality in this cafe, or in what manner it acts, muft be afcertained by farther experiments.

10. In the ancylofis incompleta and ftiffnefs of the limbs, frequent frictions with warm oil are of the greateft fervice.— Thefe are the affections in which oils have been ufed with fuccefs; but I have not met with any inftance mentioned in medical books, of their being employed in the following complaints, in which I experienced their good effect.

11. In vehement dolores poft partum, I ufe the oil of fweet almonds, or of poppy feeds, with the beft fuccefs. Practitioners know to what height thefe pains will rife in fome cafes, how much the neceffary reft of lying-in women is difturbed by them, and how often they give rife to topical inflammations, puerperal fevers, and metaftafes of the milk. Opiates, that are commonly recommended here, may frequently do harm, by either fuppreffing the lochia, or by promoting them too much, and by obftructing the alvine excretions, or by occafioning an inflammatory ftate. All thefe difadvantages are avoided in ufing the oil, by which that fpafm of the uterus is abated, and the neceffary excretions promoted. I generally order one table fpoonful of frefh expreffed oil of fweet almonds to be taken every three hours, either pure or in an emulfion. The firft dofe is frequently fufficient, and there are feldom more than three or four neceffary,

neceſſary. In obſtinate caſes, the addition of one or two grains of extract. hyoſciami to each doſe will improve the effect.

12. In chronic and topical cutaneous diſeaſes, particularly in dry herpetic exanthemata, it is both a ſimple and efficacious remedy, to rub the affected parts with walnut kernels. In ſimilar caſes, the oleum nucis juglandi, proved alſo very uſeful. Several other cutaneous complaints, and even ſcabies, when but topical, were cured in this way.

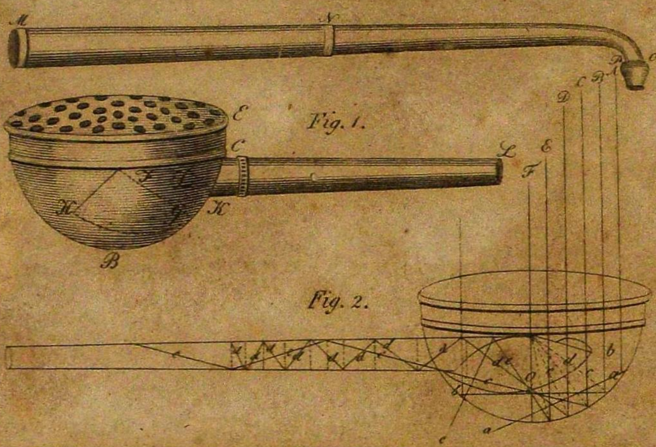
13. I have frequently employed the oil with ſucceſs in a morbific irritability of the genitals in the male ſex. The irritability of theſe parts is ſometimes ſo much heightened that the moſt trifling ſtimulus occaſions erections, priapiſms, and ſeminal excretions. In this caſe I order the parts to be repeatedly rubbed with oil, of which a little is alſo to be applied between the glans and prepuce; and by thus preventing the debilitating excretions, and anomalous efforts, the proper ſtrength of thoſe parts is re-eſtabliſhed, and the uſe of roborantia greatly ſupported, which are frequently counteracted by that diſagreeable ſymptom.

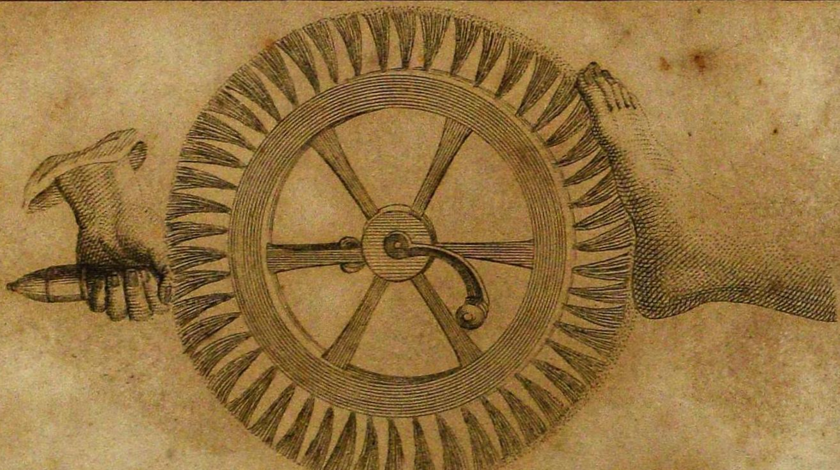
Oils for medical uſe ought always to be freſh, and expreſſed without heat; whereas, when they are corrupted and rancid, they have a contrary effect, and affect extremely the organs of digeſtion. The moſt efficacious mode is to employ them pure; or, if the ſtomach ſhould not bear them ſo, to give them in an emulſion, viz. ℞. *Olei amygdal. dulcium recenter et frigide expreſs. unc. j. aquæ fontan. unc.* vi. *mucilagin. G. Arabici. q. s. ut F. emulſio, cui adde ſyrup. emulſivi unc. ſs.* D. Although the groſs oils agree with reſpect to their chemical properties, yet they ſeem to differ with regard to the living body; a circumſtance that, moſt probably, depends on the ſubſtances from which they are extracted. The pure freſh expreſſed oil of poppy ſeeds is the eaſieſt to be digeſted by the ſtomach; and I know inſtances of perſons, whoſe ſtomach could not bear ſallad except what was prepared with the oil of poppy. The oil of lintſeed poſſeſſes the moſt relaxing qualities, to which the oil of ſweet almonds comes the neareſt. The oil of olives is, in ſome meaſure, ſtimulating, and not eaſy of digeſtion. Fats have a more involvent power than pure oils, as they are more compact and gluey, on which account they are more apt to defend a very tender ſurface from the impreſſion of a ſtrong ſtimulus, as of cauſtic poiſons and dyſentery. Amongſt the vegetable fats, the *butyrum de cacao*; and amongſt the animal, the ſpermaceti, are the beſt and eaſieſt of digeſtion. Wax alſo diſſolved in the yolk of eggs, deſerves to be recommended; for, according to ſome authors, this remedy proved of the greateſt avail in violent dyſentries.

Some

Skull of the Ornithorhynchus paradoxus.

Hemispherical acoustic Tube. (No. 2.)





Medical Journal No. 29.

The Metallic Brush.

Printed for R. Phillips No. 71 St. Paul's Church Yard.

Some Anatomical Remarks on the Ornithorhynchus Paradoxus, *from New South Wales; by Prof.* BLUMENBACH.

(With an Engraving.)

THE moſt remarkable circumſtance in this curious animal is the great ſimilarity of its head with that of a duck, which, however, is ſtill more ſtriking in its internal ſtructure. From the external form of the ſkull of this animal, one might be more eaſily led to conclude that it belonged to ſuch an aquatic bird, than to a creature of the Mammalia tribe. Both the jaws are as broad and low as in ducks, and the calvaria has, at leaſt in my ſpecimen, no traces of a ſuture, as is generally the caſe in full-grown birds. There is likewiſe a ſingularity in the cavity of the ſkull, (caverna encephali) of which nothing like it is known in any quadruped animal of the Mammalia, though there exiſts ſomething analogous in the claſs of birds, viz. a conſiderable bony falx (g), which is ſituated along the middle of the *os frontis*, and the *oſſa bregmatis*. This proceſſus is in general ſcarcely to be ſeen in the Mammalia, even in thoſe that have a bony tentorium cerebelli. I know no inſtance of any animal of that tribe being provided with ſuch a bony falx as the Ornithorhynchus, (*schnabelthier*, as Pr. Bl. calls it, i. e. beak animal, or beaked animal) if we except ſome anomalous formations; as I poſſeſs the ſkull of a woman, in which the tabula vitrea of the os frontis has formed a ſimilar bony criſta. Amongſt the bird tribe, however, in which Willis and others deny the exiſtence of ſuch a criſta, I have diſcovered it in the ſkull of the cock of the wood, (urogallus), which ſurpriſingly agrees as well in the ſituation as in the form with that in the Ornithorhynchus. The mandible of this animal is very ſingular, conſiſting of a beak, the under part of which has its margin indented as in ducks, (q) and of the proper inſtrument for chewing that is ſituated behind, within the cheeks. This has, at leaſt in my ſpecimen, no teeth, nor even the traces of alveoli, but only two broad proceſſus of a peculiar formation on each ſide, whoſe undulated ſuperficies fit one another. (n. o.) Dr. SHAW ſays of the ſpecimen he examined, that it had no teeth, "dentium nulla ſunt veſtigia." Vid. No. 118 *of the Naturaliſt's Miſcellany.* But Sir JOSEPH BANKS, to whoſe liberality I am indebted for my ſpecimen, informs me, that Mr. Home, has found in a ſpecimen that belongs to the Society of Natural Hiſtory at Newcaſtle, on each ſide of the jaws, two ſmall and flat molar-teeth. The fore part of this anomalous mandible, or the beak, is covered and bordered with

with a coriaceous ſkin, in which three parts are to be diſtinguiſhed: 1. The proper integument of the beak, (integumentum roſtri). 2. The labiated margins of it, (margines labiales). 3. A curious edge of the ſkin of the beak, (limbus tranſverſarius). Into theſe three parts of that membrane numerous nerves are diſtributed, of which thoſe in the upper part of the beak ariſe from the ſecond branch of the fifth pair, viz. in the limbus tranſverſarius; that which penetrates through the foramen infraorbitale, (s) in the margo labialis; that which comes forth behind the oſſa intermaxillaria (t) and to the integumentum roſtri, three branches, which run out between the oſſa intermaxillaria, (u). From this quantity of nerves, with which the integument of the beak is provided, no doubt is left of this part being intended as the organ of feeling, a ſenſe which, beſides men and the quadrumanes, very few mammalia enjoy, that is to ſay, few animals poſſeſs the faculty of diſtinguiſhing the form of external objects and their qualities by organs deſtined for that purpoſe; a property that is different from the common feeling, by which every animal is able to perceive the temperature and preſence of ſenſible objects, but without being informed by the touch of them, of their peculiar qualities. Thus, for inſtance, the ſkin in the wings of a bat, and its ear, ſerve probably as organs of common feeling, by means of which they are enabled to flutter, even after being blinded, without flying againſt any thing. The whiſkers (vibriſae) of many animals ſeem likewiſe to ſerve for the purpoſe of informing them of the preſence of ſenſible bodies, on which account Dr. DARWIN compares them with the antennae of inſects; but they are not able to inform themſelves of the properties of thoſe objects. It is true, that the ſnout of a mole has been conſidered by DERHAM, and the ſnout and tongue of many other animals likewiſe by BUFFON, as organs of touching; but this ſeems only to be their ſecondary uſe. The ſame may be ſaid of the elephant's trunk, which BUFFON alſo conceives to be an organ of touching, although from its manner of living, the neceſſity of ſuch an organ of touching does not appear. The ornithorhynchus, however, is an animal, which from the ſimilarity of its abode, and the manner of ſearching for food, agrees much with a duck, on which account it has been equally provided by Nature with an organ for touching, viz. with the integument of the beak, richly endowed with nerves. This inſtance of analogy in the ſtructure of a ſingular organ of ſenſe in two ſpecies of animals from claſſes quite different, is highly inſtructive for comparative phyſiology, and on this account the ornithorhynchus belongs to one of the moſt remarkable

markable phenomena in Zoology, and may in general be looked upon as one of the moſt intereſting diſcoveries with which that part of natural hiſtory has been enriched during the laſt century.

Prof. Arneman, *on Acoustic Tubes.*

(With an Engraving.)

[Continued from Vol. IV. p. 379.]

PROF. ARNEMAN proceeds to examine the different inſtruments that have been propoſed as hearing trumpets. The inſtrument, Tab. II. has been much recommended, though it appears from its conſtruction to be far inferior to that we have already deſcribed. It conſiſts of a hemiſphere made of braſs, ABC, fig. 1. whoſe radius is $= 23'''$ Paris lines, and its diameter conſequently at AC $= 2 + 23''' = 3''$ inches $10'''$ lines. On it is faſtened the cover, which is convex, and perforated with many holes. At CK is an opening $11'''$ in diameter, into which goes a conical conducting tube, $16''$ long, the diameter of which has, at GZ, $= 10'''$, and its opening at OP, $= 4'''$. For greater convenience, the tube may be taken in pieces, as appears at NMC. At OP, or that part of the conducting tube which is applied to the ear, it ends in a top, which is generally made of tin, for the purpoſe of ſhutting the meatus auditorius; but as experience has ſhown, that the continual touching of a metal generally hurts the ear, it would be adviſable to have the top made of ivory, bone, or horn. The conducting tube penetrates into the middle of the hemiſphere, where it is cut off in an oblique direction FG, to which is ſoldered a conical receptacle, the bottom of which is oval, as is ſeen in Fig. 1. HJK. This receptacle is intended for intercepting the ſound, when it is reflected from the interior ſurface of the hemiſphere; but as it ſeems to be placed in a wrong poſition, it is more calculated to confound the ſound, than to conduct it properly. In order to convince the reader of what we have here ſtated, and to ſhow, that from the conſtruction of that inſtrument it is impoſſible it ſhould anſwer its purpoſe, Fig. 2. is added, to demonſtrate how the reflection of the ſound proceeds: It repreſents the ſame acouſtic tube, likewiſe how the rays of ſound fall in, and how they are again reflected; theſe are figured in ABCDEF. It ought here to be firſt conſidered, that the point of concen-

tration

tration of the rays of light, as well as of ſound, fall into the middle of the radius of the inner ſuperficies of a globe, which is in this figure at O. This, however, is only the caſe with rays that fall in near the axis; the reſt are not ſo far propagated, declining the more and more from that point, by which means a confuſion and want of diſtinction is produced. Hence it appears, that the conical receptacle HIK, intended for the interception of the ſound, has not the proper form, but that the rays, before they reach it, diverge, and that the ear, for being able to underſtand every thing clearly and accurately, ought to be placed at O. The hemiſpherical form is likewiſe of no utility; and by examining the reflection of ſome rays, it will be ſhown, that it is not proper to convey the ſound clear and accurate. The ray *f.* for inſtance, is reflected in the ſame direction as it comes in. A, a ray more diſtant from the centre, is reflected at *a*, and conſequently does not reach that point where it could be conducted by the intercepting receptacle: The ſame may be ſaid of Bb, which being rebounded againſt the oppoſite ſide, paſſes out in the ſame direction it fell in. From this it will be underſtood, that all rays from A to B are of no uſe at all, but rather confound the ſound; and thoſe that fall in from B to C ſpring back in the ſame direction they came in, without affecting the ear at all. The ray C is therefore the firſt that touches the receptacle, and gets into the conducting tube, though it is likely to be diſperſed by being reflected with very acute angles, as is ſeen in Fig. 2. at ccc. The ray D. rebounds alſo againſt the tube, but is reflected with larger angles, increaſing by degrees; whence it appears, that the conducting tube muſt always be of a determined length, if the ſound is to be perceived by the ear. The line ddd, ſhows the reflection of this ray: The direction in which the ray E is reflected, is ſeen in ee. This may ſuffice to ſhow, that only a ſmall part of the rays of ſound, which fall in between C and D, are properly conducted and perceived by the ear, the reſt becoming quite uſeleſs. This inſtrument ſeems, therefore, not to be properly calculated to convey the ſound clearly and diſtinctly to the organ of hearing; a ſtatement which experience has likewiſe confirmed, as it was uſed by ſeveral people without the expected ſucceſs.

[To be continued.]

CRITICAL

CRITICAL RETROSPECT

OF

MEDICAL AND PHYSICAL LITERATURE.

Henrici Aug. Wrisbergii Commentationum Medici, Physiologici, Anatomici et Obstetricii Argumenti, Societ. Reg. Scient. Gotting. Oblatarum et Editarum, Vol. I. cum Iconibus, 1800, pp. 572, 8vo. Gottingen, Dieterich, price 3 rixd. 12 gr. or about 12s.

THE excellence and intereſt of *Wrisberg's* writings are acknowledged by every perſon, and a new edition of them, in which they are all collected from the different volumes of the Tranſactions of the Royal Society at Gottingen, muſt therefore be very acceptable to medical men. It is however to be regretted, that in this undertaking no certain order, neither of the time of their firſt appearing, nor according to the matter they treat of, has been attended to; but it appears rather from this want of order, that Mr. Wriſberg has too much left this edition to the publiſher, particularly, as we likewiſe obſerve no alterations and improvements in ſeveral papers that would have admitted of it in the preſent times. The firſt volume contains, beſides the laſt treatiſe, which has not been printed before, *twenty* ſmall papers, the merit and intereſt of which are too generally known for us to make any remarks on them. They are, 1. *De membrana fetus pupillari.* 2. *De vita fetuum dijudicanda.* 3. *De secundinarum humanarum varietate.* 4. *Comment de variolis, quibus interne corporis humani partes contaminari dicuntur, observationibus anatomicis superstructa;* to which treatiſe three new intereſting engravings are added, repreſenting pock-like eminences in the internal ſurface of the trachea, of the lungs, of the pericardium, and of the pleura. 5. *Observationes et experimenta ad pulmonum docimasiam confirmandam instituta.* 6. *Observatio anatomica de quinto pare nervorum encephali et de nervis, qui ex eadem duram matrem ingredi false dicuntur.* 7. *Observationes anatomicæ de vena azyga duplici aliisque hujus venæ varietatibus.* 8. *Dissert. de præternaturali et raro intestini recti cum vesica urinaria coalitu, et inde pendente ani defectu, Observ. anatomica superstructa.* 9. *Observat. anatomica de testiculorum ex abdomine in scrotum descensu ad illustrandam in chirurgia de hernis congenitis utriusque sexus doctrinam.* 10. *Observ. anatom. de ganglio plexuque semilunari in abdomine et nervisillum formantibus.* 11. *Experimentor. et observation. anat. de utero gravido, tubis, ovariis et corpore luteo quorundam animalium cum iisdem partibus in homine collatis, Sect. I.* 12. *Observatio anatomico obstetricia de structura ovi et secundinarum humanarum inpartu maturo et perfecto collectæ.* 13. *Comment. de membranarum ac involucrorum corp humani, partim dubiis, partim veris.*

ris. 14. *Observat. anatomica de nervis arterias venasque comitantibus.* 15. *Observatio anatomico medic. de nervis pharyngis.* 16. *Comment. de uteri mox post partum naturalem resectione peracta non lethali, observatione rarissima illustrata, cum brevi fundamentorum lethalitatis sciagraphia.* 17. *Observat. anat. med. de systemate vasorum absorbente, morbos vicissim excitante et sanante.* 18. *Comment. de singulari genitalium deformitate in puero hermaphroditum mentiente.* 19. *Observat. anat. neurolog. de nervis viscerum abdominalium.* 20. *De nervis systematis coeliaci, Sect. I.* 21. *De nervis gastricis, quae est observationum de ganglio plexuque semilunari continuatio, 1ma.* The laſt of theſe treatiſes contains a very intereſting contribution to the hiſtory of the inteſtinal nerves, in which Prof. Wriſberg gives an account of the nerves that proceed from the ſemilunare ganglion. He premiſes ſome pathological and anatomical remarks on the different organs of the abdomen, which he divides into four ſyſtems, *systema coeliacum, meseraicum, renale,* and *genitale,* of which the two former and the two latter have a great relation to each other. The firſt, however, differs from the ſyſtema meſeraicum, by all the organs that belong to it receiving blood from one artery only, whereas thoſe of the latter have it by two arteries. The organs of the firſt ſyſtem are ſituated in the upper region of the abdomen, juſt under the diaphragma, by the motions of which they are greatly influenced, whereas thoſe of the ſecond lie more diſtant from it in the lower region. The former ſecretes the humours for digeſtion, and prepares the nutritive matter, which is abſorbed by the other ſyſtem. When any organ of the ſyſtema coeliacum ſuffers, all the other organs are likely to be affected; it receives likewiſe a great number of nerves from the par vagum. Prof. Wriſberg divides the nerves of the ſyſtema coeliacum into the *plexus gastricos,* the largeſt of all, *plexus omentales, hepaticos, pancreatico-lienales,* and *pancreatico-duodenales.* The two firſt of theſe plexus are moſt excellently deſcribed here; but as we cannot communicate this deſcription to our readers, we beg leave to point out ſome of the reſults, as being extremely intereſting. The left part of the ſtomach has a greater conſent with the nervus vagus and the organs that receive branches from it, viz. the lungs, the pharynx, the tongue, and the trachea, than the right; which, however, has a nearer relation to the nervus intercoſtalis, the liver, duodenum, pancreas, &c. All parts of the ſtomach are not equally provided with nerves, the cardia has the moſt of them, on which account it enjoys the greateſt ſenſibility. Theſe nerves do almoſt all end in the pars villoſa, which therefore is moſtly affected by a poiſonous and other deleterious ingeſta. The inner ſides of the ſtomach poſſeſs likewiſe a great quantity of nerves, and the latus exterius more than the latus poſterius. The little curvature has a great number of nerves, whereas the curvatura magna has but few. The omentum is provided with ſmall but numerous nerves.

Journal fur Medizin, &c. i. e. Journal for Medicine, Surgery, and Midwifery, particularly with reſpect to Aitiology and Semiotic. By a Society of Phyſicians. Edited by Dr. J. F. S. Posewitz, Profeſſor in Gieſsen, No. 2. 1800. 8vo.

The firſt number of the above Journal appeared in 1799. This ſecond number contains, (beſides an *Introduction*, in which the author ſpeaks of the uſe and neceſſity of enlarging and improving the aitiology of diſeaſes by accurate obſervations and by the teſt of experience) 1. *Obſervation on a peculiar exanthema, by Dr. Schmidt.* A child of five weeks was affected by a puſtulous eruption, which returned periodically every fortnight, and diſappeared without leaving any redneſs, whereby a ſlow fever came on, laſting till the eruption appeared again. It was ſuppoſed to be occaſioned by ſome alteration in the conſtitution of the mother, who had ſhortly before ſuffered a very ſudden fright. It was cured by mercurius cinereus, within three months, after having continued for nearly eighteen months. 2. *Obſervations on the treatment of wounds, penetrating the integuments and bones of the head; by Dr. Baumer:* The author recommends the trepan in all fiſſures and depreſſions of the ſkull as very neceſſary. 3. *On difficult dentition, by Dr. Wendelstaedt;* in which the Theory of Dr. Wichmann is refuted. 4. *On a delirium, by the Editor,* which came on in a patient who had ſuffered ten years by epileptic fits. 5. Hiſtory of a murder, committed by knocking the perſon on the head, without any external injury being perceptible. 6. *On the ſymptoms of ſevere injuries of the head, by Dr. Muller.* 7. *On difficult dentition, as far it may give riſe to infantile diſeaſes, by the Editor.* 8. *Reviews.*

Archiv fur Zoologie and Zootomie; i. e. Archives for Zoology and Zootomy; edited by C. R. W. Wiedemann, Profeſſor at the Anatomical Chirurgical College in Brunſwick, &c. Vol. I. No. 1. with engravings, pp. 208, 8vo. Berlin, for Voſs, price 1 rixdollar, or about 3s. 6d.

The combination of Zoology and Zootomy, as the author juſtly remarks, may prove not only very uſeful and intereſting for ſyſtematic inquiries, but great advantages may hence ariſe for phyſiological reſearches, and it is on this account that the preſent publication deſerves to be recommended. The author intends to lay down every thing relating to Zoology, in the wideſt ſenſe of the word; to inſert original papers, as well as to give faithful extracts, and to collect any hint that is otherwiſe loſt to the public. By which, indeed, he is likely to render the ſtudy of thoſe branches of natural ſcience more convenient and eaſy, and at the ſame time leſs expenſive. The firſt number of this Journal contains the following heads: 1. On the ſtudy of comparative anatomy, by the editor. 2. On the anatomy of animals, by H. Winkelmann. 3. Eſſay of a comparative deſcription of ſkulls, from all orders of quadrupeds, by the Editor. 4. Deſcription of the ſkeleton of an

an armadilla. 5. Description of the skeleton of a sloth. 6. On the organs of digestion, with some remarks on rumination. 7. Account of Zoological publications and miscellaneous intelligence. The plates are extremely well executed; the two first represent several skulls of Bradypoda, in different views: The third gives a representation of that curious animal from New South Wales, Platypus anatinus, or ornithorhynchus paradoxus.

Mr. Charles Bell's System of Dissections.

(Continued from Vol. V. pp. 579—581.)

" In examining the body, it will be observed how the stomach and spleen may be wounded by a thrust apparently into the thorax; or how the lungs and stomach, or lungs and liver, may be thrust through at once. It may also be observed how the stomach and liver lie before the diaphragm, where it goes obliquely down upon the back part of the abdomen; and how they lie contiguous to one another. The effect of hydrothorax, in pushing down the diaphragm, and depressing these parts—and the effect also of enlargement of the liver, or distention of the stomach upon the breathing, must be obvious. It will also be seen how a hernia of the stomach into the thorax may happen by a rupture of the diaphragm.

" The stomach is commonly retired behind the colon, and under the ribs. Yet when slightly distended, it comes further down in the belly, and assumes the place of the arch of the colon. Therefore finding a patient with an open ulcer immediately under the scorbiculus cordis, discharging the contents of the intestines (an instance of which I have lately seen), it may be questioned whether it be an opening from the stomach or from the colon. This may perhaps be determined by observing the matter discharged, whether it be food partly digested, as from the stomach; or fæces, as from the colon, after having gone through the whole length of the canal.

" Ulceration of the inner coats and cancerous tumours of the stomach are frequent. Upon the inside of the stomach, intestines and bladder, when violently inflamed by any irritation, there is often a general redness with bloody slime, or there are small blots of florid extravasation. The few cases of cancerous tumours of the stomach which I have seen, accord with the common observation, that the upper orifice of the stomach is more liable to disease, (owing to its more glandular structure) and more exposed to injury from substances swallowed. I have seen the whole upper half of the stomach, with its walls so much diseased, that they were not less than one inch in thickness, with their inner surface soft and cancerous. This disease was attended, during the patient's life, with a continual gnawing pain, with soreness even upon taking the softest food, and with extreme pain upon swallowing

ſwallowing any thing, in the ſlighteſt degree ſtimulating. In diſeaſes of this kind, and where there are tumours projecting into the ſtomach, there is frequent vomiting of black chocolate-coloured blood, which is often attended with fainting.

" Contractions of the œſophagus, and upper orifice of the ſtomach, are frequent without any organic diſeaſe. When there is diſeaſe of the œſophagus, the ſtomach is found contracted in breadth, and ſcarcely to be diſtinguiſhed from the inteſtines, (HALLER); but it is ſaid, that when the diſeaſe is lower down, the ſtomach is found to be diſtended. I do not know whether this laſt obſervation holds good. The ſtomach, however, is often diſtended ſo as to fill almoſt the whole belly, without any other extraordinary appearance. And in theſe caſes the ſmall inteſtines being compreſſed, obſtinate coſtiveneſs is induced.

" That the coats of the ſtomach are affected by its own juices, is now univerſally believed. But, as far as I have obſerved, eroſion is not in ſuch caſes to be expected. Nor are the coats thinner, but they are thickened, gelatinous, yielding, and tender to the fingers; a circumſtance that has often troubled me in injecting the veſſels of the ſtomach. That this is produced by the ſecreted fluid of the ſtomach, unaſſimilated with the food, we are aſſured from the inteſtines not being thus affected, though in the ſame circumſtances with regard to putrefaction. Although it be a common and well founded obſervation, that the ſtomach is extremely delicate, and although the inſtances of ſudden death occaſioned by blows upon it are very frequent, yet there are ſome caſes that would ſeem to form exceptions to this. A young man received a kick in the belly from a horſe. It occaſioned long a conſtant pain in the fore part of the belly, weakneſs and indigeſtion; theſe were ſucceeded by a tedious hectic fever, and at laſt proved fatal. Upon diſſection, the omentum was found folded up and contracted round the ſtomach, forming a ſolid maſs of about an inch and a half in thickneſs, and connecting the ſtomach and inteſtines and liver by its adheſions. The ſtomach itſelf was turned to a bloody grumous cancer. The outlines of this caſe will point out the difficulties which will ſometimes occur in unravelling theſe parts when diſeaſed.

" Obſerve the ſituation of the liver towards the right ſide; how far it comes down into the right hypochondrium; and how dangerous and improper it conſequently is to tap on this ſide, the more eſpecially as the liver is often enlarged in dropſy. Obſerve, again, the cloſe connection of the liver with the diaphragm, and how abſceſſes, originally formed in the liver, may, by the ſpreading of the inflammation, and by the adheſions with the diaphragm, communicate the ſuppuration to the lungs, ſo that the matter from the liver may be coughed up from the breaſt; or how hydatids originally formed in the liver may, by the ſame communication, be coughed up from the lungs; or how matter in the liver may, by its natural tendency to the ſurface, propagate the inflammation to the abdominal muſcles, and, by forming adheſions with

them, be discharged outwardly. In this last case the adhesions, always preceding the formation and progress of matter outwardly, the attachment of the liver and integuments is close and intimate, and the abscess points regularly, so that the operation is very easy. Abscess of the liver, besides being attended with a peculiar painful feeling in the right hypochondrium, is accompanied with a sharp pain of the shoulder and clavicle of the same side; yet it sometimes happens, that the liver is so little sensible, that upon dissection, there are found great abscesses where the patient, during life, had no complaint. There are, in the writers upon the diseases of hot climates, some strange examples of the extensive communications of these abscesses.

"After having observed the intimate connection of the liver, duodenum, and stomach, it is easy to conceive a case which not unfrequently happens, viz. a discharge of matter into the stomach and intestines, and even a discharge of the food by the external wound, after an operation for abscess of the liver; for it has happened, that the abscess of the liver has formed connections with the stomach on the one hand, and, on the other, opened outwardly upon the side of the belly. It will also be seen how hydatids, getting entangled with the intestines, may be discharged by stool; and how tumours of the liver, pancreas, and spleen, must oppress the stomach.

"With regard to the operation for the collections of matter in the liver, unfortunate mistakes have been made. There is a case mentioned by Haller, of what he calls a spurious aneurism, in which, upon the tenth rib below the scapula, and in the muscular flesh of the back, there seemed to be the pointing of an abscess, which yielded to the fingers; the patient having at the same time a slow fever, and a jaundiced complexion. They had no doubt of its being an abscess of the liver; but the patient died of the violent hæmorrhagy the night following the operation. There is another case which brings home to us still more forcibly the importance of an accurate knowledge of these parts, and of a lively conception of the effects of disease upon them. In l'Hospital de la Charité in Paris, the operation for empyema was performed, but no matter flowed from the incision. They had been deceived chiefly by the circumstance of matter being spit up from the lungs. Upon dissection, they found that the matter had been originally formed in the liver, and from it had been communicated to the lungs; but that this communication, having been formed deep in these viscera, no matter could flow from the incision. In Ruysch there is another case of a country surgeon cutting into the liver, when operating for paracentesis of the thorax; and the case shows, at the same time, the possibility of mistaking enlargement of the liver with hydatids for hydrothorax. See in SANDIFORT (*Obser. Anat. Path.* Lib. III. Cap. V. p. 83. Not. e.) a curious case of abscess; and indeed instances of such cases are very numerous. It has been found, too, that such is the sympathy between the stomach and liver, that the dressings after the operation

operation for abſceſs being too much ſtuffed into the wound, have occaſioned violent bilious vomiting, which was removed upon withdrawing them.

"In diſſection, there is frequent occaſion to remark the ſoftneſs of the liver when diſeaſed; and it is neceſſary to obſerve its colour when not diſeaſed, ſo as to be able to judge in any other inſtance how far its colour is natural. Often, in diſeaſe, it is of a lighter colour, or ſpotted and marbled, or its thin edges are found tinged with blood as if inflamed, or perhaps they are found livid, which may ſometimes be produced by the poſition of the body after death, and the gravitation of the blood, as happens in the lungs. At any rate, there is ſeldom active inflammation of the liver. It is often ſchirrous and enlarged, and then aſcites is frequently combined. Its ſchirrous ſtate, when far advanced, is palpable enough; it feels knobby and irregular on the ſurface, and, when cut, the tubercles are generally of a light brown colour. See varieties of theſe in Baillie's Morbid Anatomy. The liver, the kidney, the ſpleen, and the uterus, that is, all the ſolid viſcera, ſeem peculiarly the ſeat of hydatids, but particularly the liver; and from the burſting of the parent ſacs, ſituated in theſe parts, the ſmaller veſicles get entangled with the membranous viſcera.

"The laſt circumſtance that ſeems worthy of notice in this part of the belly, is the obliquity of the diaphragm, and the manner in which the parts lie upon it. If there be a tumour formed in any of thoſe parts that are protruded by the action of the diaphragm, ſuppoſe an aneuriſm of any of the veſſels, however the ſurface of the belly may be moved, the pulſation of this tumour will be continual upon the hand; but if the tumour be ſituated upon any of the veſſels whoſe attachment to the ſpine hinders them from being diſplaced by the motion of the diaphragm, then the action of the diaphragm, and conſequent protruſion of the viſcera and integuments of the belly, will give the feeling as if its pulſation were ſubſiding while the tumour retires from the hand. This circumſtance, ſimple as it is, is the more apt to be overlooked, as a patient, when a phyſician feels his belly, does not breathe regularly, but ſtrains himſelf, and breathes at intervals."

A Practical Essay on the Art of recovering Suspended Animation; together with a Review of the most proper and effectual Means to be adopted in Cases of imminent Danger. Tranſlated from the German of CHRISTIAN AUGUSTUS STRUVE, M.D. 12mo. pp. 200. London, 1801, Murray and Highley.

OUR readers are already acquainted with the merit and abilities of Dr. Struve,* and the preſent work does in no degree derogate from

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* See Journal, Vol. V. pp. 293—377.

from them. This comprehensive practical work deserves to be generally distributed at the public expence: No medical practitioner, magistrate, public inn, or farm house, should be without it.

It is divided into three sections; in the first of which Dr. S. gives the history of *humane* institutions, the signs of life, the signs of death, the causes or accidents which produce apparent vital extinction, such as suffocation by water, by vapours, by a cord, &c. cold, lightening, violence, &c. In this part also the author examines the general principles of the resuscitative process.

In the second section we find an account of the resuscitative apparatus, and the practical rules, from which we present our readers with the following extracts.

"To those who wish to become more intimately acquainted with the most perfect apparatus for this purpose, I recommend the following excellent publication: "*Geschichte und jetzige Einrichtung der Hamburgischen Rettungsanstalten für im Wasser verunglücte,*" namely, "The History and present State of the Resuscitative Institution of Hamburgh:" by J. A. Gunther, with plates, Hamb. 1794.

"In order to render this work more perfect, I have also mentioned Gorcy's bellows, though I am convinced, that they are almost unnecessary: for the principal attention of the practitioner should be directed to a speedy excitement of irritability.

"I. *Resuscitative Apparatus.*

"A. *General apparatus.*—1. *Instruments:* A lancet, bistoury, a syringe to cleanse the throat of mucus; blankets.—2. Sticking plaster.—3. Soft brushes for friction.—4. A quantity of brandy or wine.—5. A bottle of oil.—6. Vinegar.—7. Culinary salt.—8. Warm water for bathing.—9. Cold water.—10. A deep tub for bathing the feet.—11. An oblong vessel for bathing the whole body.—12. A quantity of aromatic plants.—13. Ginger, mustard, vesicatories.

"B. *Particular instruments.* 1. Hunter's thermometer.—2. Three or four small tubes, such as Coleman has recommended.—3. Gorcy's bellows.—4. A portable electric machine. 5. Dr. Richter's instrument for opening the wind-pipe.

"*A particular chest,* containing the most necessary instruments, and a sufficient quantity of medicines for internal and external use, ought to be in the possession of every medical man.

"II. *Practical Rules for the Treatment of Persons apparently dead, or endangered.*

"1. Crowds should be guarded against, as five or six persons are sufficient to perform the process, and a few others may procure the necessary instruments.

"2. The person endangered should not be brought into a warm or crowded room.

"3. A free circulation of air must be obtained, by opening the windows of the room where the process is conducted.

"4. A

" 4. A hafty application of refufcitatives is dangerous, and tends to extinguifh the vital principle.

" 5. All refufcitative remedies, when too ftrong, and abundantly adminiftered, are prejudicial.

6. Proper means of exciting fufceptibility ought to be applied from the commencement, and continued throughout the whole procefs of refufcitation.

" 7. Stimulants fhould be adminiftered only in proportion to the perceptible degree of fufceptibility.

" 8. All refufcitatives are to be gradually applied, according to the temperature of the body.

" 9. A fingle remedy fhould never be confidered as fufficient to reftore animation, but a proper and fucceffive application of feveral fhould be purfued.

" 10. Before the patient has recovered the power of deglutition, neither medicine nor nutriment ought to be adminiftered. Emetics, in particular, might prove fatal at this period.

" 11. Clyfters of tobacco, emetics, and fternutatories, ought to be ufed with great caution, or not at all; they are particularly dangerous at the commencement of the procefs.

" 12. All powerful odours are prejudicial, efpecially during the firft indications of life.

" 13. The procefs fhould be continued from *four* to *fix* hours; nor fhould the recovery of the patient be defpaired of, till the moft unequivocal figns of death have become evident.

" III. *Particular Directions.*

" *Treatment at the commencement.*—1. Violent concuffions are prejudicial, though a moderate rolling motion has fometimes been efficacious.—2. Strong friction is alfo injurious at the commencement of the procefs.—3. Particular care is required to wrap the body in warm blankets or cloths, and warm it moderately, in cafes where a higher temperature is falutary.

" *Continuation of the Treatment.*

" 1. The procefs of warming, and the means of exciting fufceptibility, muft not be too foon difcontinued; nor fhould the perfon apparently dead, be uncovered, but when indifpenfably neceffary.

" 2. Stronger friction and ftimulants are generally indicated;

" a. By figns of fufceptibility; fuch as returning warmth; throbbing of the heart, and fpafmodic fhivering of the limbs.

" b. The method of exciting fufceptibility of irritation having been continued for fome time, it may be fuppofed actually to exift, and fuch ftimulants are to be adminiftered, as may tend to promote its developement.

" 4. Gentle ftimulants ought to be firft adminiftered, and thofe of a ftronger nature gradually and fucceffively applied.

" *Treatment*

"*Treatment of the Patient on the first Symptoms of returning Life.*

"1. A precipitate method to enforce resuscitation ought to be guarded against, as well as the application of violent stimulants, such as strong odours, &c.

"2. The before-mentioned method, particularly that of gentle friction, is to be moderately continued.

"3. The gradual developement of the vital power should be carefully attended to, as the nature and degree of stimulants must be determined in consequence.

"4. A careful continuance of the application of warmth to the patient will be most efficacious at this period.

"IV. *General Treatment of Persons in Danger.*

"In order to enable the reader to comprehend, at one view, all resuscitatives, and the rules for their application, with respect to vital power, I shall give a short description of the treatment of persons endangered by fatal accidents.

"*First Treatment.*

"Diligent search for the body, and its removal to the open air; undressing, &c.

"The subject should be placed in a horizontal position; the head somewhat elevated, and turned to the left side; the best place is a table in the middle of a room, so that the assistants may have easy access.

"The person apparently dead, ought also to be removed in the above mentioned posture, and the mouth and nose cleansed of froth or filth without delay, to facilitate the communication of air to the lungs. This may be effected by the finger, a feather dipped in oil, or by a syringe. The body is, at the same time, to be kept covered with warm blankets."

These general rules are then explained at length, and the treatment of each case particularly laid down.

The Third Section contains the means of saving persons in extreme danger from accidents, poisons, apoplexy, &c. with an account of the different kinds of poisons and their antidotes, the means of detecting sugar of lead in wine, &c.; for all which we must refer to the Work itself.

GOTTFRIED CHRISTIAN REICH, *Med. et Chirurg. Doct. et Professor, Member of many learned Societies,* ON FEVER, *and its Treatment in general. Published by command of the King of Prussia, by the Higher College of Medicine and Health of Berlin,* 1800. *Translated from the German, by* CHARLES HENRY PARRY, *Ordinary Member of the Physical Society of Goëttingen. To which are added, a Preface, by the Translator; and an Appendix, by* CALEB HILLIER PARRY, M. D. F. R. S. *Member of the*

the Royal College of Physicians of London; and one of the Physicians of the General Hospital of Bath. 8vo. pp. 102. London, 1801. Cadell and Davies.

For an account of the original of this work, see Journal, Vol. iv. p. 556, and Vol. v. p. 178.

From the Appendix by Dr. Parry, we make the following extract.

" As I have reason to suppose the preceding pages to be an accurate translation of a work, which has been so much sought for in Germany, that the Translator has not been himself able to purchase a copy, I shall not attempt to reconcile any apparent contradictions in the theory, or make on it any further remark, than that the operations on the human œconomy, attributed to oxygen and azot, appear to be totally opposite to those which are assumed by the English chemists. Which of these opinions is just, future experience must decide. The most important point is the matter of fact; whether the acids are really capable of producing, in all or any febrile diseases, those beneficial effects which are promised from their use. If this shall eventually prove to be the case, and it shall appear that the practice has been derived by fair deduction from chemical principles, we may congratulate ourselves on having at length extracted some gold from the ordure of medical chemistry.

In the work itself, there is a great air of earnestness and ingenuousness. The author candidly acknowledges, that the use of acids in fevers had been established by old and long experience; but he observes that they were employed in very small quantities, and only as auxilliaries; far from being considered as of primary and essential consequence in the cure. To this it may be added, that the acids which have been chiefly exhibited, have been either the vitriolic, or, more especially, those of the vegetable kind. The use of the muriatic acid has been more rare, though not wholly unknown. As long ago as the year 1773, that acid was highly recommended by our countryman, Sir William Fordyce, to be given internally in those fevers which were called putrid or malignant; and to be applied externally in the form of liniment or gargle to the sloughs in the throat, which often accompany such fevers. His liniment consisted of twenty drops of the concentrated acid to an ounce of honey of roses; and his febrifugum antiscepticum contained five drops of the acid mixed with two ounces of a strong decoction of Peruvian bark. In a subsequent publication, which appeared in the year 1790, in form of a letter to Sir John Sinclair, Bart. " concerning the virtues of the muriatic acid," he expressly recommends that medicine as the best remedy in " all our putrid diseases of the worst kinds;" " in petechial, camp, and jail distempers, as well as the malignant sore throat, so frequently fatal in this country; and afterwards in the small-pox and plague. In this letter, the author acknowledges himself indebted for the muriatic gargle to Sir William Duncan; and quotes a pamphlet on the external and internal use of this acid, published in the year 1664,

1664, by Conſtantine Rhodocanacides, a Greek empiric, who calls himſelf chemiſt to King Charles the Second, and who derives his theoretical preſumption of its extraordinary power from the univerſality and approved value of common ſalt. He recommends the acid mixed with food and drink to the amount, if neceſſary, of one hundred drops in the twenty-four hours, as a preventive and remedy for the plague, and as a general antiſceptic; and publiſhes, at the ſame time, ſeveral "certificates of the great benefit that had been received from it." To this ſource Sir William Fordyce confeſſes himſelf indebted for the firſt hint, reſpecting the internal uſe of the muriatic acid in putrid diſeaſes; and he enumerates ſome caſes of that kind, in which he attributes the cure chiefly to that acid.

"In the form of glyſters, I do not know that the muriatic acid has been preſcribed in England by any other perſon than myſelf. In this manner I, ſeventeen years ago, employed it, mixed with nitrate of ſoda, apparently with very good effects, in ſeveral caſes of the typhus, in the Pauper Charity in this city. But as the adminiſtration of the muriatic acid in theſe inſtances aroſe merely from a chemical miſtake, I never purſued that practice; nor have I learned that the publication of Sir William Fordyce has induced one ſingle phyſician in this country to truſt to the internal uſe of the muriatic acid for the cure of any Febrile diſeaſe."

The Medical and Chirurgical Pharmacopœia, for the Uſe of Hospitals, Diſpenſaries, &c. By Richard Reece, Chepſtow. 8vo. p. 88. Briſtol, 1800. London, Weſt and Hughes.

That our readers may be enabled to judge of the Author's views in this publication, we give an extract from his Preface.

"It was a wiſe and beneficent ſpirit that directed ſuch amiable inſtincts to the patronage of Inſtitutions which might, at all ſeaſons, afford to diſeaſe a conſolatory refuge in time of need; and we may with ſome triumph exult in the conviction, that the medical profeſſion of our own country, know their nature better than to uphold ſuch eſtabliſhments from any principle of mercenary gratification. In moſt other States, I believe this eulogium cannot ſo truly and judiciouſly apply to that rank of its members. The opinion, however, is by no means ſingular, that an opening may ſtill be left in the improvement of their economy. In the humble hope, therefore, of giving riſe to a plan which may retrench in Infirmaries the ſcale of general expenditure, without, at the ſame time, with-holding any ſuccour for the relief of individual malady, the following little Treatiſe has been drawn up to meet the public eye. It is requeſted that the medical profeſſion will not conſider the intention of the author as originating from any deſire of *preſcribing* to their judgment, or cenſuring the prevailing ſyſtem, but only as a hint, if the alteration ſhould be deemed expedient or neceſſary, on which gentlemen of more enlarged practice and ſuperior talent may improve. It has been at times thought convenient to depart from

from some of the usual names for the sake of a more distinctive perspicuity. In order to swell as little as possible the contents and price of the book, brevity has been uniformly adhered to where-ever it could be done with effect, and the few stray notes which run through the volume, are only such as appear to the author indispensibly necessary."

We think the Author has deserved well of the Profession by this Essay, and we have no doubt that his benevolent intentions will be considerably promoted by its publication.

Considerations regarding Pulmonary Consumption. By T. SUTTON, M. D. 8vo. pp. 84. London, 1799, Robinsons.

ALTHOUGH the greatest part of this work was printed in December, 1799, as we are informed in the appendix, it was published only a few weeks ago. The leading feature of this performance is the novelty of the *cause* of Pulmonary Consumption, which the author states in these terms:

" The first symptoms of disease in the case related, were in the bowels, and by degrees the disorder became a confirmed phthisis pulmonalis. Hence, through its progress, seeing every pulmonary symptom so mild, I was often led to suspect *the emaciation and debility to be induced by some disease of the abdominal viscera*; which, however, I could not account for in any other way, except by supposing the mesenteric glands to be obstructed, as the symptoms led to no suspicions of any other cause or causes that could be considered as adequate to produce such effects.

" During the progress of the case first related, I inspected the bodies of two soldiers after death, at the Southampton Military Hospital, who had been first affected with dysentery, and afterwards with pulmonary consumption; in both which there were indurations in the mesenteric glands, with tubercles in the lungs. I have, since then, seen several cases of consumption, where affections of the bowels preceded the pulmonic symptoms. It is a very common thing for patients, in protracted dysenteries, to have pulmonic affections before death: Of such cases I have seen many in the general military hospitals; and it frequently happens that diseases of the abdominal viscera are in their latter stages accompanied by pulmonary consumption. By writers on this disease, the tabes mesenterica is mentioned as sometimes accompanying it.

" From a consideration of these circumstances, I was more strongly impelled to believe, that an obstruction of the mesenteric glands was the cause of pulmonary consumption, or at least was the principal cause in occasioning the deaths of the patients, as no other adequate cause of the fatality of the disease, and of some of its principal phænomena, appeared to me to have been assigned. For, from what has been said of the effects of hectic fever, it was evident to me that it could not be of so pernicious a nature; and the mild pulmonary symptoms in many cases can by no means be taken into account as the causes of death.

" I have before ſtated the ultimate cauſe of the death of patients in conſumption to be a want of proper ſtimulus in the blood, to carry on the circulation, and that it may be accelerated by a diſeaſe in the lungs.

" Hence it appears to me, that phthiſis pulmonalis is cauſed by a diſeaſe in the meſenteric glands, and that the tubercles in the lungs, and ſome other of its ſymptoms, are excited by ſympathy.

" It may be here alleged, that a ſympathetic conſumption ariſing from diſeaſes in the abdominal viſcera has long been admitted, and that it is probable that ſuch diſorder may be communicated in the manner juſt ſtated; but it will be contended, that the ſource of phthiſis is very often in the lungs themſelves; which is evidenced by the affection being excited by extraneous ſubſtances inhaled into that viſcus; as happens to ſtone-cutters, ſciſſor-grinders, and others employed in ſimilar occupations. Such opinions I know to have received very conſiderabe credit amongſt medical men; and thoſe appear to be the faſtneſſes in which they may hold out, that the affection of the lungs, called pulmonary conſumption, is often, or (as will be generally aſſerted) moſtly, an idiopathic diſeaſe.

" We are not ſufficiently acquainted with the laws of the nervous ſyſtem, to be able to give any idea reſpecting their mode of action, in occaſioning diſeaſes of ſympathy, though there is no principle more generally admitted than this. There are two affections of parts diſtant from the lungs, which muſt be accounted for in this way in pulmonary conſumption, according to the preſent idea that the lungs are primarily affected. The one is the affection of the meſenteric glands, and the other of the glands of the neck: for in no other way can theſe affections be accounted for, except by the influence of this principle. On this account it will be leſs ſurpriſing, if I introduce it, to connect the diſeaſe of the meſenteric glands as a primary diſeaſe with that of the lungs. For, as in the former caſes, it has been long admitted, ſo, in the other, ſhould it appear probable, that the meſenteric glands may be firſt affected, there can be no difficulty in admitting, that they may by ſympathy be capable of occaſioning tubercles and other affections of the lungs. Beſides, it has long been allowed that pulmonary conſumption is ſometimes a ſecondary diſeaſe.

How much ſoever writers may differ in their theories and cauſe of diſeaſes, we generally find them agree in the cure. Dr. S. however, has but little faith in Digitalis, and follows Dr. Reid in placing his principal reliance on emetics. " For an increaſed action may be produced by exciting an increaſed motion in the contiguous parts, which may be effected by the uſe of emetics and purgatives, which promote a greater motion in the inteſtinal canal, and from their contiguity, in all probability, communicate ſome of it to the meſenteric glands. And as I conceive that emetics not only excite greater motions in the inteſtines, where the glands are moſt affected, but produce a determination to the external parts, and appear to me to cauſe in no wiſe ſo great a debility, I ſhould recommend the general uſe of them in preference to purgatives."

MEDICAL AND PHYSICAL INTELLIGENCE.

[FOREIGN AND DOMESTIC.]

Mr. Molwitz, of Stutgart, defcribes a new inftrument, which he calls the Metallic Brufh, and from which, nearly the fame effects may be expected as from Perkins's metallic tractors. He is however of opinion, that the action of both inftruments is merely mechanical, but he particularly recommends his Metallic Brufh, as uniting all the different effects of mechanical ftimulufes, as that of friction, preffure, flagellation, brufhing, &c. This inftrument confifts of a fmall wheel, about one foot in diameter, made of any light wood, which has on its right a handle for turning it, and on its left a wooden handle for the left hand, at which it moves through the medium of an iron axle. On its periphery, which is about one inch and a half broad, are faftened bunches of wire, two or three inches long, the top of which end in fmall knobs, like the heads of pins. Nothing material confifts in the fize of the knobs, or the length of the wire, nor in the direction of the bunches. *(See the plate.)* This cheap and fimple inftrument may be applied either by the patient himfelf in fome places, or by fomebody elfe, without requiring any particular dexterity, and it is faid to afford the following advantages. 1. During the operation the inftrument as well as the part on which it is applied can be moved in different directions, and each place touched in fuch a manner as anfwers the purpofe. 2. According to fome obfervations, the application of it on the furface of the belly, feems to promote the periftaltic motion, and to excite the ftomach and bowels to digeftion, and extraction of the chyle, and likewife to carry off wind, and forward the excretion of fæces. 3. The infenfible perfpiration is greatly promoted by it, and on that account its application on the whole furface of the fkin may prove very ufeful in difeafes that arife from a fuppreffed tranfpiration. Mr. Molwitz knew an inftance of a retrograde eryfipelas being reproduced on the fkin by the ufe of the Metallic Brufh. He alfo relates another cafe, where an aged man, who fuffered feverely by rheumatic pains on feveral parts of the body, was cured by four applications of that inftrument. As the patient was fo extremely fenfible at the affected places, it could at the firft time be only applied in circular motions round the affected parts; but the fecond time he could bear the immediate touch of the inftrument on the fuffering parts. 4. This operation feems to have a confiderable influence on animal heat, and the circulation of the blood, as it caufes a quicker pulfe, and a congeftion from the whole fyftem of blood veffels towards the parts that are touched with it. 5. The abforption is thereby con-

 fiderably

ſiderably ſupported and increaſed. Mr. Molwitz relates an inſtance of a conſiderable extravaſation of blood, occaſioned by a fall, being removed by it in a very ſhort time, without the application of any other remedy. 6. Mr. Molwitz thinks, that it might likewiſe be of great uſe in obſtructions and ſpaſms of the belly, cauſed by a ſedentary life, and he mentions a caſe of a painful ſpaſmodic ſenſation in the ſtomach of a woman being cured by it, when the patient could not bear any internal medicine. The operation ought to begin gently, and the inſtrument firſt conducted round the affected part, approaching by degrees towards it; and laſtly, it is not to be applied too long upon the ſame part.

The ſame gentleman recommends the topical application of the vapours of hepatic gas, as of great ſervice in arthritic pains ariſing from the continued uſe of mercury, a diſeaſe called by the appropriate name of mercurial gout. The affected foot is accordingly put upon a ſmall bench placed in a bathing tub, into which ſeveral pints of water are poured upon one or two ounces of liver of ſulphur, freſh prepared with lime. The patient having brought the affected part into a convenient poſition, ſeveral glaſſes of ſtrong vinegar are added to the mixture, after which the bathing tub muſt be cloſely covered, that the hepatic gas, which is now diſengaged, may only touch the affected parts; care ought at the ſame time to be taken to ſhelter the mouth and noſe againſt it. He likewiſe praiſes the uſe of the vapours of formic acid, or acid of ants, as being of great ſervice in gouty pains and ſtiffneſs; for which purpoſe any quantity of the great ſpecies of ants is to be infuſed with hot water. Mr. Hufeland adds, that he alſo found in his practice thoſe baths of ants extremely ſerviceable in the gout, and particularly in the worſt kind of it, in the arthritic lameneſs and nodous gout.

Dr. Herder, of Weymar, has made ſeveral experiments on the internal uſe of phoſphoric acid, according to which it ſeems to derive its efficacy from acting, not only as a ſtimulus upon excitability, but alſo from imparting to organization, a principle eſſentially neceſſary for its exiſtence. It proved particularly uſeful and beneficial in aſthenic hæmorrhages, conſumptions, diſeaſes of the bones, nervous diſorders, convulſions, lipothymies, &c. Dr. H. was particularly intereſted to diſcover what effect it had in febrile affections; and the experiments he made for the purpoſe convinced him of its being a moſt excellent febrifuge remedy, particularly in nervous fevers with direct debility. In hectic fevers, internal exulcerations, &c. it ſhows itſelf as a very good palliative remedy, by reſtoring the loſs of phoſphoric acid, which the body ſuſtains by profuſe ſweating. His mode of preparing the phoſphoric acid is to burn one drachm of phoſphorus upon a ſtone plate, and to filter the remaining acid with one ounce of diſtilled water. Of this pure diluted acid he adminiſters 15, 20, or 30 drops *pro doſi*, by itſelf, or in combination with a ſyrup. The doſe ought in the beginning

beginning to be ſmall, but given at ſhort intervals, and afterwards the doſe may be increaſed, but not employed ſo frequently.

Dr. SAUTER has related, in Hufeland's Practical Journal, Vol. XI. No. 1. ſome caſes of Hydrophobia, occaſioned by the bite of a mad dog, in which he ſucceſsfully employed the belladonna, a remedy that has for theſe twenty years been known as one of the moſt efficacious antidotes againſt that dreadful affection, though in later times the great effect aſcribed to it has been much doubted. This Dr. SAUTER thinks is owing to the following circumſtances: 1. The belladonna ought always to be given in a ſufficient doſe, if any deciſive effect be expected, becauſe a ſtrong doſe at once is better than ſmaller ones repeatedly given. Dr. SAUTER gave it from ten to twelve grains pro doſi. 2. The root is preferable to the herb of the plant, as being more efficacious. 3. According to the Doctor, the hydrophobia keeps regular periods of forty-eight hours, which ought to be regarded in employing that active and powerful remedy, and, on that account, it ſhould be given in a ſufficient doſe, in order to prevent the next paroxyſm, without loſing time by trying other remedies: The beſt method is, to adminiſter it half an hour or an hour before the ſecond and laſt paroxyſm. With the third paroxyſm, the diſeaſe proved always mortal, according to the obſervation of Dr. SAUTER. It is worthy the attention of practitioners, whether the periodical nature of that affection be confirmed by farther experience.

Dr. RITTER, of Wiſbaden, recommends the application of living ſnails on obſtinate exulcerated buboes, as a ſure remedy to heal them. In one caſe he was obliged to take them off, as the patient could not bear the diſagreeable ſenſation occaſioned by the motion of the animal; and for the ſake of experiment, he applied the juice of the ſnails, ſqueezed in a mortar and expreſſed: He found that it anſwered the purpoſe quite as well as if the living animal had been uſed. This remedy has been likewiſe highly praiſed in ſcrophulous ulcers, which reſiſted every other mode of treatment. By what principle they act in ſuch a manner, our theoriſts have not yet determined.

Prof. PLOUCQUET has related a caſe, in Loder's Journal, by which he endeavours to prove, that in drowned people the wind-pipe and its branches are ſometimes entirely filled with water, and as long as this mechanical impediment of breathing exiſts, no other exciting remedy can be of avail, for bringing the perſon to life again. As it is impoſſible to aſcertain whether there is water in the trachea or not, it is always adviſable and neceſſary to try to remove that impediment. For this purpoſe, after the mouth and noſe have been ſufficiently cleaned, the body ought to be put in ſuch a poſition, that the head may hang a little downwards, to which end he propoſes to lay it acroſs a barrel, or acroſs the back of a ſtrong man, who might at the ſame time compreſs the breaſt and belly,

belly, and by that means promote the efflux of the water from the wind-pipe. If, however, this experiment ſhould not ſucceed, he propoſes to extract the water by a ſucking inſtrument, as has been deſcribed by *Van Marum* and *Goodwyn*. For removing the mucous matter in the wind-pipe, he adviſes to inject warm water, either through the rima glottidis, or through an artificial opening. Mr. Plouquet intends to publiſh a treatiſe upon this ſubject, in which he will conſider it more at large.

Dr. Flachsland relates a curious inſtance of monſtroſity, which is the more remarkable, as the ſame woman had been delivered three times of children that in every reſpect ſhowed in their ſtructure the ſame deviation from Nature. The face, breaſt, and belly were naturally formed; but the ſuperior extremities meaſured only 3 ½ inches, and the right of the inferior extremities 4, the left 3 ½ inches; they were, at the ſame time, bent inward in ſuch a manner that the heels were near the genitals. The fore arm, on both ſides, was entirely wanting, the humerus being united with the hand by two ligaments; but this union was not effected by a joint, as the condyle of the humerus and the ſuperior margin of the carpus conſiſted of a gelatinous ſubſtance. The tibia and fibula were likewiſe wanting on the inferior extremities, and the feet joined to the patella, in a ſimilar way as was obſerved on the ſuperior extremities. All the inteſtines were naturally formed, and in a natural ſituation.

Prof. Hecker, of Erfurt, has related in Hufeland's Practical Journal, two caſes of a diſeaſe which reſembled both the Aſthma Millari and Angina Polypoſa, with the former of which it agreed in being occaſioned by taking cold, and in ſhowing at firſt the ſymptoms of a ſimple cold, which grew worſe by degrees. The noiſe in coughing was a deep baſe, and the paroxyſms of ſuffocation changed in turns with perceptible intermiſſions, which in the beginning ſeldom, but afterwards rapidly ſucceeded one another, and death followed from a ſpaſmodic ſuffocation. It reſembled Angina Polypoſa in owing its origin to an infectious miaſma, in the violent coughing which accompanied it, and particularly in the polypous compact concretions that were found in the wind pipes of ſome patients who died of this diſeaſe. Mr. Hecker therefore calls it Angina Polypoſa ſpaſmodica, as it is partly occaſioned by a ſpaſtic coarctation and contraction of the pulmonary veſſels, and partly by polypous concretions in the trachea and its branches.—The principal remedy which he ſucceſsfully employed, was mercury in combination with extractum hyoſciami, or, if circumſtances would permit it, with opium. It ought, however, to be given in ſuch doſes as to be capable of acting inſtantly upon the conſtitution, and the ſymptoms of its action muſt be ſoon perceived in the mouth by a gentle ſalivation. The addition of narcotics prevents its acting upon the bowels. It is ſometimes neceſſary and of much ſervice

ſervice to adminiſter an emetic during the uſe of mercury, in order to cauſe the patient to vomit up the concretions that have been made removeable by the mercury, and at the ſame time to promote the ceſſation of the ſpaſms in the lungs. External mercurial frictions on the affected part are alſo uſeful for diſſolving the polypous concretions; and a mixture of unguentum mercurii and linimentum volatile proved very efficacious in theſe caſes. Mr. Hecker finally remarks, that not any good is to be expected from tracheotomy, as the proximate cauſe of death is not owing to a mere ſpaſtic and mechanic conſtriction of the rima glottidis, but to the trachea and its branches being filled and obſtructed with coagulated lymph.

According to the obſervations of Mr. Stern, Semina Phellandrii Aquatici, deſerve very much to be recommended in conſumptions. Its efficacy, he thinks, is particularly owing to its promoting the clean ſtate of the pulmonary ulcer. He generally employed it with Pulvis Doveri, chiefly in order to diminiſh the inflammatory irritation of the ulcer, and to render the cough leſs frequent. The nature of the pus ought always to be obſerved, becauſe if it is in a too thick or putrid ſtate, it cannot well be evacuated by urine, and the remedy becomes therefore leſs uſeful. Mr. Stern is of opinion, that it may likewiſe prove a very efficacious remedy in hooping cough; but this requires to be aſcertained by farther experiments. The ſeeds of Phellandrium Aquaticum have alſo a vermifuge quality.

Dr. Jenner has communicated in a letter to Dr. De Carro of Vienna, his experiments on inoculating dogs with Cow-pox, which produced in them a diſeaſe, ſimilar to that which is commonly called the dog's diſtemper, but in a very ſlight degree. What is moſt remarkable, this inoculation renders them afterwards unſuſceptible of that affection. Dr. De Carro has hitherto had no opportunity of repeating thoſe experiments on a large ſcale; but the few he has made, perfectly agreed with what Dr. Jenner had obſerved.

To Dr. BRADLEY,

Dear Sir,

In a letter from a friend of mine at Palermo, dated the 21ſt of April, is the following paſſage, which I extract, becauſe you may think it worth a place in your next number, under the article of Medical News. Your's, always,

New Burlington Street, June 15, 1801. JOHN CLARKE.

" The Cow-pox is in high reputation at Palermo. I am well acquainted with Dr. Marſhall, who tells me that he has tried it already upon nearly 10,000 perſons, and it has generally ſucceeded better than in colder climates. His fees for inoculating the Cow-pox, are ten guineas in genteel families, and five in families of the

Operation of Œsophagotomy.

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